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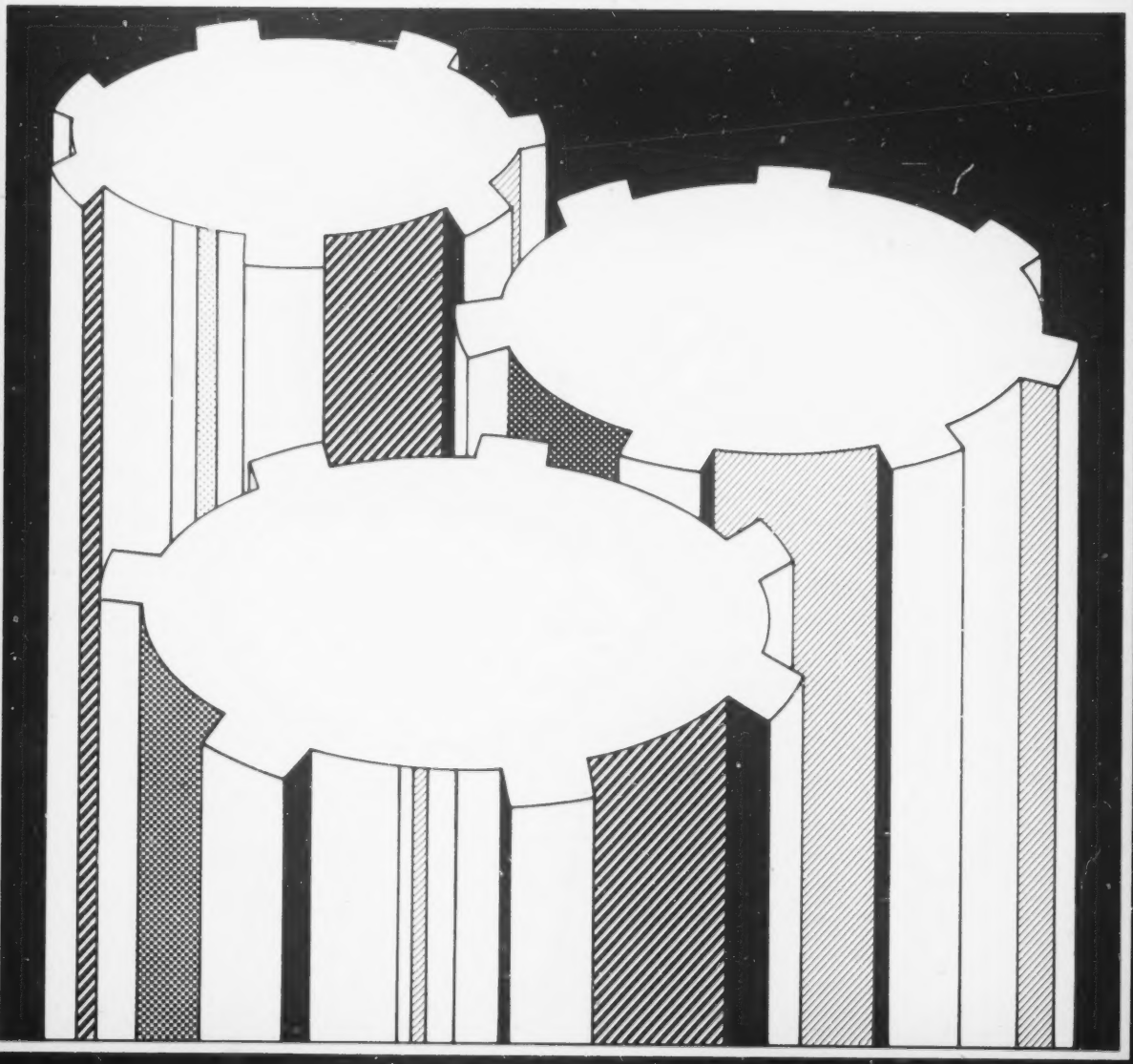
# Has Trade Protection Revitalized Domestic Industries?



J932-37

# HAS TRADE PROTECTION REVITALIZED DOMESTIC INDUSTRIES?

The Congress of the United States
Congressional Budget Office

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, DC 20402

J932-37

# PREFACE

Growing imports have forced many domestic industries to reduce output and lay off workers. On a number of occasions, the United States has provided trade protection to such industries. These restraints on imports are intended to provide domestic firms with the time and the resources to compete more effectively with foreign producers. This study considers the effects of trade protection in revitalizing domestic firms in four cases--textiles and apparel, steel, footwear, and automobiles. It also discusses options that the Congress should consider in devising policies for industries injured by import competition. The report was prepared at the request of the Subcommittee on Trade, House Committee on Ways and Means. In keeping with the mandate of the Congressional Budget Office (CBO) to provide objective analysis, the report makes no recommendations.

Daniel P. Kaplan of CBO's Natural Resources and Commerce Division wrote the report under the supervision of Everett M. Ehrlich. Peter Siegleman made important contributions in the early stages of the project. Wayne Glass, Andrew Horowitz, Stephen Parker, and Elliot Schwartz of CBO provided helpful suggestions. Robert Crandall, Charles Bremer, Fawn Evenson, John Kwoka, Daniel Luria, Carl Priestland, Louis Schorsch, Reuben Schwartz, David Tarr, and George Wino provided valuable comments. Any errors, however, remain the responsibility of the author. The report was edited by Paul L. Houts, and the manuscript was typed and prepared for publication by Kathryn Quattrone, Gwen Coleman, and Pat Joy.

Rudolph G. Penner
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November 1986

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## SUMMARY


International trade has grown rapidly since the end of World War II. Reductions in tariffs and improvements in communication have lowered the costs of importing goods produced in other countries. Moreover, new producers are emerging as developing countries industrialize. As a result, producers in the United States and elsewhere are facing increased competition from foreign producers.

With imports at historically high levels, the Congress has considered numerous proposals to increase the competitiveness of domestic industries. This report investigates whether trade protection was successful in restoring international competition in four cases--textiles and apparel, steel, footwear, and automobiles--and examines trade policy options that the Congress might consider in the light of these episodes.

International trade increases a nation's overall economic welfare by enabling it to specialize in those goods and services that it can produce relatively efficiently. At the same time, however, some industries may have difficulty in competing against foreign firms. To aid these industries, the United States has on a number of occasions granted them trade protection, which provides direct and immediate benefits to labor and capital employed in the industry. Nevertheless, protection is generally awarded for a limited period of time. It is not uncommon, however, for an industry to have more than one period of trade restraints.

The primary purpose of protection is to enable an industry to adjust to changed competitive circumstances. On the one hand, it is supposed to accomplish this goal by allowing the industry to contract more gradually than it otherwise would have and thereby ease the transition of resources employed in the industry to other sectors of the economy. Alternatively, trade protection is intended to provide an industry the time and resources to compete more effectively. If one examines the intent of trade legislation, however, the revitalization of the industry is clearly the more important of these conflicting objectives. The question is whether protection has, in fact, revitalized industries injured by foreign exports.

## THE COSTS AND BENEFITS OF PROTECTION

Trade restraints impose a number of significant costs on the economy. To begin, they raise the prices that consumers must pay for imports and their protected domestic substitutes. Moreover, they hamper the efficiency of the economy. In a fully employed economy, increased imports in an industry encourage resources employed there to be shifted to other sectors where they can be used more productively. By specializing in the goods and services it can produce relatively efficiently and importing those that can be produced more inexpensively elsewhere, a nation can increase the amount that it has available to consume and invest. Protection limits this process.

While trade improves a nation's welfare, not all segments of the economy necessarily benefit. For example, in many developing nations, labor is relatively abundant and consequently prevailing wages are much lower than those in the United States. As a result, firms in these countries can produce many labor-intensive products at lower cost than domestic firms. Moreover, a domestic industry that has successfully competed in international markets may become less successful over time. It might lose its competitive edge, for example, if its technology became standardized and readily appropriable by foreign firms.

In the short run, the primary benefit of protection in a fully employed economy is that workers who would have been laid off remain productively employed during what otherwise would have been a spell of unemployment. If the industry has not adjusted during the period of protection, however, the economy will have to bear costs of adjustment once the restraints lapse. If the industry does adjust in the long run, the primary benefit will be that the economy has been spared the costs of workers being unemployed and the additional costs of their finding and training for new jobs. Although a protected industry will be larger as a result of restraints, in a fully employed economy other sectors will consequently be smaller. Society does not necessarily benefit from such transfers of resources.

A common source of the difficulties that domestic industries encounter is that their costs, and particularly their labor costs, are substantially higher than those of foreign producers. In fact, foreign producers may have lower costs even though they are less efficient; the lower price of inputs more than compensates for their more intensive use. In such situations, protection is supposed to enable an industry to improve its competitive position, but it does so only indirectly. First, restricting imports increases their

price. Second, the resulting increased demand for domestic substitutes raises the prices, output, and profits of the domestic industry. Finally, higher profits enable domestic firms to invest either in new cost-reducing technologies or new products.

Trade protection cannot be expected to increase substantially a firm's incentives to invest in cost-reducing technologies. The higher output and prices that result from protection do not significantly affect the profitability of such an investment. If a new technology is supposed to reduce average costs by 10 percent, it would do so whether or not the industry was protected.

Increasing profits, however, may make it easier for a firm to obtain funds and thereby increase the expected profitability of investments. Thus, protection might restore an industry's cost competitiveness if it failed to make cost-reducing investments because of a lack of resources. If capital markets are reasonably efficient, however, then companies should be able to secure the requisite funds at an appropriate cost. In any case, if a lack of funds for investment is the source of an industry's problem, it would be less costly to the economy to provide the resources directly to the firm through loans or loan guarantees rather than indirectly through protection.

## THE CASE STUDIES

The four case studies considered in this report include the largest industries that have received protection; they are also among the largest in the economy. Footwear and automobiles each had one episode of protection; steel had three; and the textile and apparel industries have had continuing and expanding protection since 1956. With the exception of the trigger price mechanism in the steel industry, which was instituted in 1978, protection has been provided by placing quotas on imports from significant foreign suppliers.

For the most part, the difficulties of these industries stem from their relatively high domestic costs, although declining domestic consumption has been a significant factor in the steel industry. Wages in the textile, footwear, and apparel industries are well below the average for all manufacturing, but they substantially exceed wage rates of many of the significant foreign suppliers. In contrast, wage rates in the domestic automobile and steel industries are not only higher than the principal foreign suppliers, they are also well above the average for all manufacturing.

## The Effectiveness of Restraints

While the quotas succeeded in restricting output from the constrained sources, the effectiveness of the restraints was limited by a number of factors including source switching and product substitution. With the exception of automobiles, imports increased from unconstrained foreign producers. In apparel and footwear, foreign producers increased shipments of unconstrained substitute products. For example, Korean footwear manufacturers circumvented the quotas by reducing the amount of leather in their athletic shoes. In addition, quotas provide incentives for foreign suppliers to shift their product mix toward higher valued products, which are frequently more profitable market segments for domestic firms. Finally, by reducing demand for imported products, recessions lessen the impact of the restraints. For example, because auto demand slumped in 1981 and 1982, quotas probably did not have much of an effect on the sales of Japanese cars in those years.

Nevertheless, despite these drawbacks, the restraints limited imports for at least some of the time during which they were in effect. As a result, output, employment, and profits of the domestic industry were higher than they would have been without protection. On the other hand, to the extent the trade restraints increased profits in the steel and automobile industries, they may have helped to preserve the relatively high wage rates that is a source of the competitive difficulties experienced by those industries.

## Profits and Investment

Although profits were higher because of the restraints than they would have been, in most cases they were not substantially higher than they had been before the restraints were imposed. The major exception was the U.S. automobile industry after quotas had been imposed on Japanese automobiles. There were no other foreign sources of comparable small cars, and so profits for domestic car producers rose substantially. In the shoe industry, quotas applied to only two nations, accounting for 54 percent of imports. Nevertheless, the shoe industry also registered a modest increase in profits in the final two years of the restraints.

The restraints did not increase investment in textiles, apparel, or steel. While investment in the auto industry rose in the last two years of the quotas, it is uncertain whether they contributed significantly to that increase. With the economic recovery, the automobile industry's profits would have increased significantly without the quotas. Moreover, despite

the increased investment, the industry's debt as a percentage of stockholders' equity declined and was below the average of all manufacturers. In the footwear industry, however, quotas probably did increase investment. With its indebtedness above the average for all manufacturing, the footwear producers may have had difficulty in securing funds, so the profits from the quotas could have played a role in the greater investment. Yet, despite this increased investment, labor productivity in the footwear industry grew significantly more slowly than it did for all manufacturing, and thus the industry was not apparently able to close the significant gap in costs between it and its principal foreign competitors.

### Competitiveness of the Industries

In none of the cases studied was protection sufficient to revitalize the affected industry. The steel industry recently received its third episode of protection after demonstrating to the International Trade Commission (ITC) that it had been seriously injured by import competition. Imports in the footwear industry have increased substantially since the quotas lapsed, and in 1985 the ITC again made a determination that the industry had been seriously injured. Imports of textile and apparel products also increased rapidly during the 1980s, accounting for an expanding share of domestic supply. Last year the Congress passed a bill, which was vetoed by the President, that would have placed tighter quotas on textile and apparel imports into the United States. Finally, despite five years of protection, the automobile industry is still facing strong competition from Japanese producers. In fact, the domestic automobile manufacturers have announced plans to rely increasingly on foreign producers to supply them with the small cars that have been the primary source of their competitive difficulties with Japanese manufacturers.

In sum, the experiences in these four cases suggest that the current system of trade restraints has not been sufficient to revitalize these industries. Furthermore, it is not at all clear that a lack of funds was the source of the industry's difficulty or that technologies were available that would erase the cost disadvantage of domestic producers.

## POLICY OPTIONS

The above factors suggest that the United States should consider a number of other policy options in framing a new trade policy. It might, for example, adopt a more aggressive posture to revitalize industries, or shift the focus of the program to aiding workers displaced because of the contraction of

industries, or end special treatment for trade-impacted industries. Moreover, when protection is used to help industries adversely affected by import competition, tariffs may be more appropriate than quotas.

## Use Tariffs Instead of Quotas to Restrict Imports

In the cases considered in this report, quotas have been used to restrain imports, with the exception of one episode of protection in the steel industry. Quotas, however, present a number of problems. In the first place, when there are many potential suppliers of the restrained good, it is difficult to administer a quota system that covers all of them. Second, by allocating market shares, quotas reduce competition among countries. Third, quotas give foreign firms an incentive to shift their product mix toward higher valued goods. Fourth, under a quota, foreign producers capture the higher revenues resulting from the increased price. Tariffs do not have these problems. On the other hand, since quotas are generally negotiated with foreign governments and provide some financial benefit to foreign suppliers, they are less likely to invoke retaliation.

## Increase the International Competitiveness of Domestic Industries

In most cases, the lower labor costs of foreign producers has been an important source of the competitive difficulties of domestic industries. To compete more effectively, therefore, domestic producers must invest in production processes that are less labor intensive. Coordinated action by firms to retire facilities and to establish new ones may increase the likelihood that firms will undertake such investments. A firm may be more likely to invest in a new facility if it knows that the construction of such a plant will not result in overcapacity. These actions could be coordinated by a panel consisting of representatives from various sectors--consumer groups; federal, state, and local governments; and firms in the industry as well as their employees. The panel might also consider issues such as wage concessions and aid for displaced workers. As part of the panel's revitalization plan, the government could provide loans or other assistance to help finance needed investment. The prospect of such aid might also provide an incentive for members of the industry and labor to agree to such a plan.

On the other hand, the marketplace itself provides substantial incentives for firms to undertake investments to reduce their costs, even without a panel. While coordinated action by the firms of an industry could seriously

impair competition, it is far from clear that any such plan could revitalize an industry. Furthermore, it is even questionable whether the panel would be able to agree on a plan that was acceptable to all groups.

### Focus on Workers Who Have Been Displaced by Import Competition

With existing technologies and prevailing relative labor costs, it may be that many of these industries that have been injured by imports will be unable to maintain their current scale of operation in the face of foreign producers with lower costs. Moreover, the government can probably do little to change this situation. Rather than attempting to revitalize these industries, one option would be to shift the role of the government to reducing the costs that result from workers being displaced.

Such programs would be designed to increase the mobility of workers among jobs and regions of the country. For example, once the ITC had determined that an industry had been injured by increased imports, workers would be eligible for job training and relocation grants. Since displaced workers generally take a pay cut in their new jobs, the government might also temporarily make up part of any difference. These programs could be financed by a tariff on imports of the affected product, a tax on domestic output of the product, a general increase in tariffs, or some combination of the above. Thus, under this option, the role of trade protection would be limited to raising revenues.

In certain circumstances, trade protection might be used to ease the cost of an industry's contraction. If the affected industry is a substantial employer in a particular community, an abrupt increase in the number of workers looking for work may be too much for the local labor market to handle. In addition, such a sharp contraction might place a financial strain on the local economy and municipal government. By allowing a more gradual contraction of the industry, protection can allow the local labor market to work more efficiently, as well as enable the local government to prepare for the decline of its major industry.

### End Special Treatment for Industries Injured by Imports

A final option is to end the distinction between industries and firms that contract because of foreign competition and those that contract for other reasons. In a competitive economy, an increase in imports is just one of many reasons that firms and industries contract. Industries can be adversely

affected by changes in tastes, and particular firms can be hurt by domestic competition. The adverse effects on communities and workers from a reduction in output are the same regardless of the reason for it. One can, therefore, argue that it is inequitable to provide special treatment to only those industries that contract because of import competition. Rather, programs should be designed to address the generic problem of displaced workers and adversely affected communities.

CHAPTER I

# TRADE PROTECTION AS A POLICY

Throughout the post-World War II period, the United States has consistently been among the world's most outspoken advocates of free trade. Although most authorities agree that free trade increases a nation's prosperity, not all industries are equally capable of competing against efficient foreign firms. Inevitably, an open trade policy leads to increased imports of certain products that reduce the demand for domestically produced substitutes. As a result, plants are idled and workers are laid off. To aid these firms and their employees, the United States has limited imports of these products on a number of occasions.

Although trade restraints tend to increase employment and profits in the protected industry above what they otherwise would have been, they impose significant costs on the overall economy. To reduce these costs, quotas or tariffs are supposed to be imposed for only a limited period of time. In principle, protection helps the industry adjust to greater competition in two mutually exclusive ways. First, it allows the industry to contract more slowly than it would have and thereby eases the transition for workers employed in the industry. Second, and more important, it gives firms the time and the resources to become better competitors. In this sense, protection is supposed to revitalize the industry.

This report analyzes the effects of trade restraints in four cases--namely, the textile and apparel, steel, footwear, and automobile industries--and focuses on whether the import restrictions did, in fact, enable these domestic firms to become more effective competitors. This chapter examines the policy goals of protection and examines how trade restraints might improve the international competitiveness of a domestic industry. It also considers their benefits as well as their costs to the overall economy. Finally, the chapter discusses the methods used to assess the effects of trade restraints in the case studies.

## THE GOALS OF PROTECTION

Imports of products are restricted for two broad reasons. The first is when foreign firms and governments are not competing fairly, and thus trade pro-

tection is used to secure a "level playing field." Under U.S. trade laws, foreign governments are not permitted to subsidize firms that export to the United States, and foreign firms are not allowed to sell products in this country below their costs when these activities injure domestic firms. Under these circumstances, the United States can place countervailing or compensating duties on the sale of the affected products. In addition, the United States can restrict sales of a particular product in retaliation for a country's restriction on sales of U.S. produced goods.

The second major reason for protection is to aid those industries that have been seriously injured or threatened with serious injury by imports of foreign firms that are competing fairly. Under Section 201 of the Trade Act of 1974 (the "escape clause"), an industry can receive protection by demonstrating to the International Trade Commission (ITC) that it has been injured or threatened with serious injury by imports. The "escape clause" was originally designed so that industries adversely affected by negotiated tariff reductions could escape them and have the original tariff rates imposed. The Trade Act of 1974 severed the connection between trade liberalizations and protection for injured industries (see box).

The President, however, maintains the ultimate responsibility for imposing trade restraints. Moreover, the President can protect an industry without an affirmative finding by the ITC. Alternatively, if the President decides not to carry out the ITC's recommended action in an "escape clause" proceeding, the Congress can require the implementation of the ITC's recommendation by enacting a joint resolution within 90 days of the President's decision.

Although the "escape clause" is not the sole means by which industries can secure protection, the Trade Act of 1974 provides an important indication of the goals of the Congress in providing trade restraints. According to the act, trade protection is aimed at easing the transition to the new international environment. It has a time limit, and the level of protection must be relaxed after three years.

The transition is supposedly eased for two quite different reasons. First, it slows an industry's contraction and may thereby smooth the transfer of resources to other sectors of the economy. Second, by increasing profits, it may provide firms in the industry with needed resources to modernize their facilities so that they can compete more effectively with foreign firms.

Of these two goals, the Congress seems most concerned with the second--restoring the industry's international competitiveness. The legisla-

## A SHORT HISTORY OF THE "ESCAPE CLAUSE"

In 1930, to aid a faltering economy, the United States enacted the infamous Smoot-Hawley tariff, which increased average tariff rates by nearly 50 percent. Instead of increasing domestic production, Smoot-Hawley led to retaliation by foreign governments and contributed to the length and severity of the depression. In 1934, the Congress empowered the President to negotiate bilateral tariff agreements that would reduce tariffs by up to 50 percent on specific commodities. These agreements paved the way for the General Agreement on Tariffs and Trade (GATT) in 1947, in which the major trading nations developed rules for international trade. Under the auspices of GATT, there have been seven rounds of tariff liberalization, and the average tariff on imports into the United States is now 20 percent of the levels established by the Smoot-Hawley tariff in 1930. There have also been a number of actions to reduce nontariff trade barriers.

While GATT's primary goal is to establish a more open international trade environment, it recognizes the right of a government to part from free and open trade in certain circumstances. In particular, Article XIX allows a country to "escape" from negotiated tariff reductions, if the increased imports can be shown to "cause or threaten serious injury to domestic producers" of competitive products. In those cases, the country can unilaterally elect to reinstate the trade barrier that was in effect before the concession. The provision was meant to give industries time to adjust to increased competition.

In the United States, requests for protection are made to the International Trade Commission (ITC), which has the responsibility for determining whether the industry has been seriously injured or threatened with serious injury by imports. If so, it recommends to the President the type of trade relief needed to alleviate the injury. The authority to adjust tariffs or impose quotas is reserved for the President. In addition, the ITC can recommend that employees and firms be given trade adjustment assistance.

In determining appropriate relief, the President is to consider its effectiveness in facilitating adjustment, as well as its costs on consumers and the economy. Often the President does not impose relief in cases where the ITC has recommended it. The President may also decide to seek import relief even though the ITC has found that imports were not the major factor behind the industry's injury, as President Reagan did for the automobile industry in 1982. There have also been a number of instances where trade protection has been awarded without a formal escape clause proceeding.

The Trade Act of 1974 relaxed the requirements to qualify for escape clause relief. It severed the connection between trade liberalization and import protection, making the term "escape clause" somewhat of a misnomer. In addition, the importance of imports in causing the injury was reduced. Previously, it had to be shown that imports were a more important cause of injury than all others causes taken together. Under the revised standard, imports merely had to be the most important cause. Despite these liberalizations, securing trade relief via the escape clause route remains a far from certain proposition. Between 1975 and 1984, there were 53 petitions before the ITC for escape clause protection (including petitions seeking extension of existing protection). In 28 of these cases, a majority of the ITC's commissioners recommended relief, and in only 13 of these industries were imports restricted by the President.

tive history states that the "escape clause" is "not intended to protect industries which fail to help themselves become more competitive through reasonable research and investment efforts." In the Trade and Tariff Act of 1984, the Congress reaffirmed its view that protection is a means of increasing efficiency by requiring the steel companies, which had just been awarded protection by President Reagan, to invest all of their cash flow in the industry.

Modernizing an industry is not necessarily consistent with preserving the jobs of the people employed in it. In fact, major sources of the competitive difficulties of U.S. trade-impacted industries are higher wage rates and antiquated production facilities. In such situations, firms generally find it necessary to establish a newer and often less labor-intensive production process, which increases productivity but reduces employment. Furthermore, a firm responding to protection in this manner may decide to build a new plant in a different locality, thereby improving the competitive condition of the industry but providing only limited benefits to current employees of the firm. For example, in the 1950s and 1960s, many protected textile firms moved their production facilities from New England to the Southeast. 1/

Finally, one can make a case that trade protection legislations tries to achieve a third implicit goal--long-term preservation of industries. For example, the Textile and Apparel Trade Enforcement Act would have placed rather substantial restrictions on textile and apparel imports without a time limit. 2/ Although the legislation was passed by the Congress in 1985, it was vetoed by the President.

## PROTECTING DOMESTIC INDUSTRIES: WHAT MIGHT BE GAINED?

By increasing demand, trade restraints often benefit resources such as labor and capital that are employed in the protected industry. For example, protection may slow or even reverse an industry's decline in employment, and

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1. See Robert Z. Lawrence and Paula R. DeMasi, "The Adjustment Experience in Escape Clause Relief," in Gary Hufbauer and Howard Rosen, eds., *Domestic Adjustment and International Trade* (Washington, D.C.: Institute for International Economics, forthcoming).

2. See Congressional Budget Office, "Protecting the Textile and Apparel Industry," Staff Working Paper, September 1985.

therefore, employees who would have been laid off will not have to incur the cost of finding other work. If the industry's competitive position does not change, however, these adjustment costs will be borne once the trade restraints lapse. Protection may also encourage greater investment in an industry. If a new plant and equipment result in lower costs or new products, it may improve the long-run competitiveness of the industry. Protection, however, does not generally increase a firm's incentives to spend more money on cost-reducing technologies.

## Benefits and Costs While Trade Restraints Are in Effect

By reducing the supply of imports, trade restraints increase their price and raise demand for domestically produced substitutes. The higher demand, which lasts as long as the restraints are in effect, tends to benefit resources such as labor and capital that are employed in the industry. Moreover, to the extent that the restraints enable these resources to avoid spells of unemployment, gains accrue to the economy as well. These gains are generally more than offset by reduced output in other sectors of the economy.

Labor. Protection may preserve jobs in the industry and therefore reduce layoffs. 3/ Workers who lose their jobs, however, whether because of import competition or other causes, generally find other employment. Thus, one benefit of protection is that some employees will avoid spells of unemployment, as well as the costs of job search and retraining. That saving also happens to benefit the economy.

The benefit to a worker from preserving a job, however, is not always the same as the benefit to the economy. For example, laid-off workers often receive unemployment compensation that makes up somewhat for their loss in pay. Because this compensation is simply a payment from one group to another, it does not benefit the economy. A similar difference occurs in the case of workers who do find jobs. Displaced workers are generally paid less in their new jobs, and they do not reach comparable pay

3. In oligopolistic industries, protection may permit firms in an industry to increase prices and reduce output and thereby reduce employment. See Avinash Dixit, "International Trade Policies for Oligopolistic Industries," *Economic Journal* (Supplement 1984), pp. 1-16.

for a number of years. 4/ This potential decrease in salary increases the benefit of trade protection to the employee. On the other hand, since the worker is productively employed, the benefit to the economy is not substantially increased.

Some workers have more difficulty in finding jobs than others. The benefits to the economy of protecting an industry are in proportion to the number of such workers who are employed in the protected industry. To the extent that the economy is operating at less than full employment, the difficulty that laid-off workers have in finding other jobs increases, and thus the benefits of protection to both the worker and the economy rises.

When an industry that is a significant employer in a region contracts rapidly, the local labor market may be inundated with job seekers. By permitting a more gradual contraction, protection may make it easier for other firms to absorb these displaced workers and thereby reduce the costs of adjusting to import competition. 5/ For example, if layoffs in a region can be reasonably expected at some future time, other firms may establish plants in that region in response to the expected increased availability of workers. Such a situation would be consistent with the Congress's goal of providing an industy with trade protection to facilitate the orderly transfer of resources to other uses.

A recent survey of workers who lost their jobs because of falling production found that older and less skilled workers, as well as those employed in the North Central United States, had the most difficulty finding new jobs; other studies have reached similar conclusions. 6/ Overall, the

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4. For a discussion of valuing the cost of the unemployment, see Morris Morkre and David Tarr, *Effects of Restrictions on United States Imports*, Staff Report of the Bureau of Economics to the Federal Trade Commission (June 1980), p. 19. For an examination of the ability of displaced workers to find new jobs, see Congressional Budget Office, *Dislocated Workers: Issues and Federal Options* (July 1982); and Office of Technology Assessment, *Technology and Structural Unemployment: Reemploying Displaced Adults* (Washington, D.C.: U.S. Government Printing Office, February 1986).

5. For a discussion of adjustment costs, see Donald Parons, "Unemployment, the Allocation of Labor and Optimal Government Intervention," *American Economic Review* (September 1980), pp. 626-635. Also see, Michael Mussa, "Government Policy and the Adjustment Process," in Jagdish Bhagwati, *Import Competition and Response* (Chicago: University of Chicago Press, 1982), pp. 73-120.

6. See Paul O. Flaim and Ellen Sehgal, "Displaced Workers of 1979-83: How Well Have They Fared?" *Monthly Labor Review* (June 1985), pp. 3-16, and the references therein.

study found that only 60 percent of the workers who lost their jobs between January 1979 and January 1984 were employed in January 1984. Over half of these people had found new jobs within 13.1 weeks. The study also reported, however, that 27 percent of the displaced workers who did not have work in January 1984 were still in the labor force and had been looking for work for more than six months. Of the displaced workers, 35 percent who were not employed in January 1984 were no longer in the labor force. The study does not indicate the extent to which they were discouraged job seekers.

If an industry has not improved its international competitive position while the trade restraints have been in effect, imports will again increase once protection lapses. In that case, the benefit of protection would have largely been to delay the costs of unemployment, adjustment, and retraining that result from increased imports. (The costs would be reduced to the extent that the labor force had already contracted because of voluntary separations and retirements.) If an industry manages to increase its international competitiveness substantially, these costs of adjustment can be reduced or eliminated.

Capital. Increases in imports can mean that an industry's plant and equipment will be less fully employed, and protection limits this idling of capacity. But this benefit is relatively small and short-lived. Some of the idled capital--such as office supplies, trucks, and certain machine tools--could be employed in other industries. While other capital like textile looms or steel rolling mills could not be easily shifted to other industries, reductions in capacity utilization would still impose a relatively small cost on the economy. The industry's least efficient facilities would be the first to shut down and could be approaching economic obsolesence in any case. Over time, other plants would cease production as firms find that they cannot expect to earn an adequate return from additional investments. In those cases where efficient product-specific plant and equipment is idled, increased imports could result in some social costs.

Costs to the Economy. Trade allows a nation to supplement its domestic production. With open trade, a nation will specialize in those goods and services that it can produce relatively efficiently. The combination of trade and specialization increases the amount that each nation, given its limited resources, has to consume and invest, and thereby raises economic welfare.

To the extent that an economy's resources are fully employed, protection prevents an economy from realizing the advantages of open and free trade. Most directly, it increases the prices of the imported product and its domestically produced substitutes. Protection also increases prices of other products in the economy. Firms in the protected industries will use labor and other resources that, in the absence of protection, would have been used more productively in different sectors of the economy. Since less of these products will be produced, their prices will be higher. If tariffs are used to restrain imports, however, the government captures the increased price of imports, which reduces the cost of the restraints to the economy.

In addition, protection in one industry can have a direct and adverse effect on other industries that compete in international markets. For example, protecting producers of an intermediate product, such as steel, increases the costs of downstream producers, such as automobile manufacturers, and makes them less competitive with foreign producers. Moreover, if trade restraints reduce the dollar revenues of foreign producers, the supply of dollars on foreign currency markets would shrink. Reducing the supply of a currency increases its value and at the same time lowers the price of other imported goods.

Nevertheless, imposing a tariff may be socially beneficial if foreign producers have market power for a particular product (in other words, if they charge prices in excess of their costs, including the cost of capital). Since the United States is a major market, its actions can affect prices on world markets. By setting the proper tariff, the U.S. government can reduce the price of the product on world markets and capture some of the profits that the foreign producers earn from their monopoly. The benefits to such a tariff are independent of any increases in domestic employment or output and would be realized even if no domestic competition existed.

## Protection as a Means of Revitalizing an Industry

The success of foreign producers in penetrating domestic markets stems from two factors: their production costs are lower and/or their products have different characteristics, including product quality, that appeal to domestic consumers. By limiting the growth of imports and increasing profits, protection may give domestic firms certain long-run benefits; namely, the time and resources to reduce their costs or change their product lines in order to compete more effectively with foreign firms. In addition, protection may enable domestic firms to grow more rapidly than their foreign rivals and thereby achieve a cost advantage. Even if protection improved an

industry's international competitive position, however, the gains to the economy would generally not be very large.

Protection From Lower-Cost Producers. Frequently, the success of foreign producers stems from their lower costs, and more specifically their lower wage rates. To compete against producers with low wages, domestic firms must adopt a less labor-intensive production process. This approach generally entails investing in new plant and equipment. By increasing profits, protection is supposed to give firms the means and motivation to adopt new technologies.

Trade restraints do not, however, substantially increase a firm's incentives to make such investments even if the relevant technology exists. A firm would realize the higher revenues resulting from protection regardless of whether it invested in new technologies. Alternatively, equipment that reduced a firm's average variable costs by 10 percent would do so whether or not the industry was protected. Indeed, protection can actually reduce a firm's incentives to invest. In an uncertain world, a firm must evaluate the possible consequences of its potential actions. If imports from lower-cost producers are restricted, a firm may be less inclined to make a major and risky investment in a cost-reducing project.

On the other hand, protection may lower a firm's cost of capital and thereby spur investment. First, by increasing profits, protection increases the firm's available funds and thus reduces its average cost of capital. Second, imposing trade restraints may lower the perceived risks of providing capital to the industry, which will also increase the supply of funds available. Reducing a firm's cost of capital makes it more likely that an investment will be profitable. The likelihood of this effect, however, is probably small. Efficient capital markets will provide the funds needed to invest in a new technology at an appropriate (risk-adjusted) interest rate. In fact, many firms in protected industries are profitably engaged in activities other than domestic production of the protected product.

Furthermore, investments aimed at lowering costs depend critically on the existence of a new technology. But if this technology can be acquired by foreign producers, then cost parity may be only a short-term proposition. In addition, if the industry is protected by quotas, the profits of foreign firms may very well increase since they are able to charge higher prices for their products. To the extent that increased profits encourage firms to invest in new technologies, protection may have the unintended effect of encouraging foreign firms to adopt cost-saving technologies.

Protection as a Response to Different Product Offerings. Imports may grow as a result of a new product or a shift in consumer demand to existing products. For example, the increases in oil prices in the 1970s raised demand for smaller cars, which were largely produced by foreign producers. By limiting the ability of the foreign firms to capitalize on their advantage, trade restraints may reduce the costs to domestic firms of developing competitive products.

When brand identification is important, which is the case for many durable goods, trade protection can increase the likelihood that domestic firms will be able to compete successfully. By slowing the growth of foreign producers' products, protection makes it easier for domestic producers to establish brand recognition for their products. In addition, restraints raise the price of the protected product, which increases the expected profitability of a firm introducing a competitive product. These advantages would be transitory, however, if domestic producers were not able to produce a given quality of product competitively with efficient foreign producers.

Protection for Uninjured Industries. There are special cases in which protection may be used strategically to improve the international competitive positions of domestic industries, even if they have not been harmed by imports. Specifically, if protection enables firms to increase significantly their rates of growth, they may be able to exploit economies of either scale or learning-by-doing and therefore reduce their average costs. 7/

Economies of scale refer to the relationship between the average cost and the size of the firm or plant. In many industries, larger plants, at least up to some size, can operate at lower average cost. In addition, over time firms become more efficient and, therefore, can produce at lower cost. Employees learn to do their jobs better and can more readily detect problems in the production process at an early stage. Thus, independent of the scale of production, a firm's costs will decline as its cumulative output increases. This effect is referred to as economies of learning-by-doing.

By restricting imports, trade restraints enable domestic firms to produce more than they otherwise would have. Consequently, in industries where economies of scale or learning-by-doing are important and have not been realized, trade protection may enable domestic firms to reduce their

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7. See Paul Krugman, "New Theories of Trade Among Industrial Countries," *American Economic Review* (May 1983), pp. 343-347.

costs of production. 8/ Moreover, by limiting foreign sales in the domestic market, these restraints make it more difficult for foreign manufacturers to achieve these economies. Such gains are most likely to be realized in markets for newly developed products that are rapidly growing and would be affected by the responses of foreign governments.

The Gains to the Economy From Revitalizing an Industry

Even in those cases where protection improves the long-run competitive position of a domestic industry, the benefits to society may not be very great. If a protected industry successfully adjusts, it will employ more capital and labor than it otherwise would have. In a fully employed economy, however, nonprotected industries would correspondingly employ fewer resources. Society, as a whole, does not necessarily benefit from such transfers among industries.

In the event that protection enables a domestic firm to reduce its costs, it might be able to secure market power and charge prices in excess of its long-run costs. In that case, wealth would be transfered from foreign nations to the United States, and as a result domestic welfare would be enhanced. 9/ Similarly, if trade protection were to bolster the competitive position of domestic firms, foreign firms might not be able to secure a monopoly. By preventing such a transfer of wealth, trade protection could have a beneficial effect on the economic welfare of the United States. These benefits would most likely be realized in dynamic and rapidly growing markets. Current trade laws are not, however, designed to achieve such ends. The "escape clause" and other special initiatives to protect industries have largely involved mature industries like steel where demand is stagnant and domestic producers operate at a significant cost disadvantage to foreign competitors.

Even more fundamentally, it is not uncommon for a developed economy to shift from being an exporter to an importer of a product. 10/ New

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8. For a discussion of the pros and cons of the use of strategic trade policy, see James Brander, "Rationales for Strategic Trade and Industrial Policy," and Gene Grossman, "Strategic Export Promotion: A Critique," in Paul Krugman, ed., *Strategic Trade Policy and the New International Economics* (Cambridge: MIT Press, 1986).

9. See Krugman, "New Theories of Trade."

10. See Raymond Vernon, "International Investment and International Trade in the Product Life Cycle," *Quarterly Journal of Economics* (May 1966), pp. 190-207.

products--especially technologically advanced ones--are generally introduced by firms in advanced economies. Over time, the product and the production technology tend to become standardized. In competing in such mature product markets, a firm's success is increasingly determined by its relative cost of production. If production is relatively labor intensive, domestic firms will tend to have higher costs than producers in lower-wage countries, and imports from these countries will increase. The decline of some industries coupled with the growth of others allows an economy to use its resources most effectively.

## THE CASE STUDIES

The following four chapters consider the impact of trade protection in four sectors--textiles and apparel, steel, footwear, and automobiles. These industries are among the largest in the economy, and the ones that have received the most trade protection. While size alone makes them of special interest, it also means that relevant data on them are readily available, which is not the case for many of the smaller industries that have received protection. 11/

The focus of inquiry in the four case studies is on whether trade protection enabled these domestic industries to improve their international competitive position significantly. It considers the process by which trade protection is intended to improve an industry's competitiveness and determines whether these threshold requirements were met. In addition, it examines whether the industry has been able to rectify the sources of its competitive difficulties.

As previously discussed, trade protection can only indirectly improve an industry's competitiveness. First, the restraints must restrict imports and increase their price. Second, the higher price of imports must increase demand for domestic substitutes and thereby increase profits. Third, the

11. Despite these data limitations, studies have considered the effects of protection in industries not considered here. See, for example, International Trade Commission, *The Effectiveness of Escape Clause Relief in Promoting Adjustment to Import Competition*, Publication 1229 (March 1982); Robert Z. Lawrence and Paula DeMasi, "The Adjustment Experience in Escape Clause Relief," in Gary Hufbauer and Howard Rosen, eds., *Domestic Adjustment and International Trade* (Washington, D.C.: Institute for International Economics, forthcoming); Gary Hufbauer, Diane Berliner, and Kimberly Ann Elliot, *Trade Protection in the United States: 31 Case Studies* (Washington, D.C.: Institute for International Economics, 1986).

higher profits would have to lead to greater investment in plant and equipment as well as a reduction in costs. If protection fails to achieve these objectives, it will not have achieved its goal. Thus, each of the case studies examines the effect of protection on the quantity of imports as well as on the profits and investment of domestic firms.

The effect of protection on the supply of imports and the resulting increase in domestic demand may not be as large as or as long lasting as was envisioned. While quotas are among the most frequently used form of special protection, they are rarely placed on all the countries that export the relevant product to the United States. Countries not subject to the quotas frequently increase their exports, which limits the impact on the prices of imported goods and on demand for domestic products. Quotas also give exporters an incentive to shift their mix of products toward higher-valued products. 12/ Since domestic firms are often most competitive in this segment of the market, this shift reduces the benefit of the restraints to the domestic industry.

The case studies also compare the industries' profits and investment with the levels that had existed before protection, rather than the levels that would have existed had protection not been granted. Arguably, before the imposition of the trade restraints, an industry's profits, and therefore investment, had been insufficient to enable firms to compete effectively. Thus, for protection to have achieved its goal, it would have had to increase the investments of firms above what they had been.

An increase in investment, however, does not necessarily imply that an industry will be able to compete more effectively. For example, even if the investments reduced costs, domestic firms may still operate at a significant cost disadvantage. Since labor costs are a substantial source of domestic firms' higher costs, one indication of the success of increased investment is the increase in labor productivity. In the case studies that follow, the reader can discern more direct evidence of a change in the industry's ability to compete by considering the growth of imports in the period after the restraints were relaxed. A substantial increase in imports probably indicates that the industry's competitiveness was not significantly improved.

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12. This effect is most easily demonstrated when there is a market for the quota rights to import the protected product. (The proposition, however, does not depend on the existence of such a market.) In that case, the cost of the quota right will result in a smaller percentage increase in the price of the higher-priced product than in the price of the lower-priced product. Because of this shift in relative prices, sales of the higher-priced product will increase relative to sales of the lower-priced product. See Rodney E. Falvey, "The Composition of Trade within Import-Restricted Product Categories," *Journal of Political Economy*, vol. 87, no. 5 (September 1979), pp. 1105-1114.

CHAPTER II

# TEXTILES AND APPAREL

Domestic textile and apparel industries have been protected by a system of quotas that is still evolving after 30 years. For the most part, these quotas have been negotiated under the umbrella of a series of multilateral international agreements between exporters of textile and apparel products (largely developing nations) and their major customers (the developed countries).

While the quotas have limited exports of certain products from some countries, they have invariably led constrained manufacturers to shift production to other products. New exporters emerged that ultimately also had to be restrained by quotas. Thus, through much of the period that they have been in effect, quotas had a larger impact on the sources of imports than they had on the quantity of imports. As a result, restraints have provided the textile and apparel industries with only limited protection. Notably, however, some segments of the domestic industry, such as many synthetic and industrial textile manufacturers, have demonstrated an ability to compete successfully with foreign firms. Yet, the system of protection has not increased the international competitiveness of the textile and apparel industries. Although both of the industries have substantially increased their productivity, the quotas have not played much of a role in the improvements. Moreover, imports are currently accounting for an increased share of domestic consumption.

## CHARACTERISTICS OF THE TEXTILE AND APPAREL INDUSTRIES

The textile industry includes the production of yarn or thread, the creation of fabric from these products by weaving or knitting, and finishing operations such as dying, printing, and sanforizing. Of textile output, 35 percent is used for apparel, and 33 percent is devoted to home furnishing, which includes sheets, towels, furniture covering, and carpeting. The remainder is used for industrial purposes, ranging from automobile upholstery to industrial bags and belts.

There are important differences within the textile industry based on fiber type. Natural fibers (primarily cotton, but wool as well) are produced

using a technology that is not significantly different from that of 150 years ago. Although every step has been greatly speeded up and certain intermediate steps eliminated, the processes themselves--carding, spinning, and so forth--are recognizably the same. In contrast, synthetics use a technology developed after World War II, involving the drawing or extrusion of fiber filaments. The first synthetic to achieve commercial success was nylon (developed by DuPont in 1935), but it was not until the 1950s that fibers such as polyester and acrylic were widely available. 1/ Such products were initially produced exclusively by developed countries, owing to both patent protection and the relatively high degree of technical sophistication required. Domestic production of synthetic textiles has increased rapidly throughout the post World War II period and in 1984 was 72 percent of total textile mill output; cotton accounted for 25 percent; and wool 3 percent. Most of the textiles currently employed in industrial uses are synthetics.

The apparel industry cuts and assembles clothing from fabric. The distinction between the textile and apparel sectors, however, is not always clear. For example, in producing knit apparels, yarn can be turned directly into garments or pieces ready for assembly.

## Competitiveness of the Industry

Traditionally, production of both textile and apparel products has been relatively labor intensive, which has also been the primary source of the industry's international competitive difficulties. Partly because of the growth in synthetic fiber production, the capital intensity of the textile industry has increased, though it remains less so than the average U.S. manufacturing industry. The apparel industry continues to be very labor intensive. The limpness of the material has made it difficult to automate the cutting and handling of fabric. Apparel demand is also subject to shifts in fashion, making long production runs on many items uneconomical. Nevertheless, large automated plants have been developed to produce commodity-type items like jeans and men's shirts in which styles do not change much and for which demand is relatively large.

In 1980, the net value of capital equipment per worker in the textile mill products industry, Standard Industry Classification (SIC) 22, was $9,020, slightly below the average for all manufacturing. In apparel (SIC 23), it was

1. Rayon, the first man-made fiber, was produced commercially in 1891. But since it is made from cellulose, the same basic component as cotton, it is not referred to as a synthetic. The term "synthetic" is used to describe fibers made of complex organic chemicals, often with a petroleum base.

only $1,909, or one-fifth the U.S. average.[2] In 1982, there were 6,615 establishments producing textile products with average sales of $7.2 million. In contrast, the 24,313 apparel establishments had average sales of only $2.2 million.

Most textile and apparel workers are relatively unskilled, and their average wage rates are substantially below those of workers in other domestic manufacturing industries. In 1984, hourly compensation for textile workers was 66 percent of the average for all manufacturing employees; apparel workers made only 55 percent of the average for all employees. Nevertheless, hourly compensation in major textile and apparel exporting countries are 12 percent to 25 percent of those in the United States.[3] This difference is compensated to some extent by the higher productivity of domestic workers.

## Level of Imports

The higher labor productivity in manufacturing synthetic textiles partly explains the domestic industry's relatively strong performance in markets for those products. In addition, firms in the United States were in the forefront of large-scale production of synthetic fibers and synthetic blends. The greater success of foreign producers in penetrating domestic apparel markets stems from the more labor-intensive production process coupled with the substantially lower wages that prevail in developing economies.

In 1971, the share of imported products measured in pounds of both cotton and synthetic textile products (which includes apparel) was 10 percent.[4][5] Foreign producers' share of cotton textile products has increased

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2. *Statistical Abstract of the United States 1985*, pp. 413, 525, and U.S. Department of Commerce, unpublished data.

3. Unpublished data from the Bureau of Labor Statistics, U.S. Department of Labor.

4. The share data are based on apparent supply, which is defined as domestic production plus imports and is expressed in pounds. See U.S. Department of Commerce, International Trade Administration, Office of Textiles and Apparel, *U.S. Production, Imports, and Import/Production Ratios for Cotton, Wool and Man-Made Fiber Textiles and Apparel* (Washington, D.C.: March 1985).

5. Much of the data that is used in this analysis is based on mill consumption of fiber--that is, on the inputs into the production of textiles. In this form, the data do not distinguish between the end products, such as apparel and home furnishings. Thus, the term "textile products" includes both textiles and apparel. Since many fabrics are blends, the distinction between synthetic and cotton textile products are not strictly accurate.

more or less steadily since then, and by 1984 it had captured 35 percent of the market (see Table 1). The rising import penetration of cotton textile products resulted from an increase in imports as well as a fall in domestic production (see Figure 1).

Imports of synthetic textile products almost quadrupled between 1967 and 1972. During the rest of the 1970s, imports fluctuated with the business cycle, but in no year did they significantly exceed the 1972 peak. In the meanwhile, domestic production moved upward. As a result, the share of imports remained well below 10 percent between 1972 and 1980. During this period, however, the mix of imported products shifted toward higher priced and presumably higher quality products. Imports of synthetic textile products increased significantly in the 1980s as the dollar appreciated and foreign producers became more successful in producing blended fabrics of a quality more comparable to domestic output. In addition, domestic production declined slightly. Nevertheless, in 1984, the imported share of the apparent supply of synthetic textile products was roughly 40 percent of the level of cotton textile products. 6/

Unrestricted trade may affect even those segments of the textile industry that are relatively efficient--specifically, manufacturers of blended fabrics. The bulk of imported apparel is made from textiles produced abroad; increased imports of apparel thereby affect the domestic textile as well as apparel industries. Moreover, the foreign share of apparel markets has increased much more rapidly than that of textiles and in 1984 was more than three times as great.

Despite the increased imports, neither the textile nor apparel industries has contracted appreciably between 1972 and 1984. Output of the apparel industry in 1984 was only 6 percent lower than it had been in 1972 and higher than it had been in half of the intervening years. 7/ Domestic production of textiles in 1984 was less than 1 percent lower than it had been in 1972. It was, however, 10 percent lower than its peak year in 1979.

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6. At 36.8 percent, the imported share of the supply of wool products is even higher than its share of cotton supply. Wool, however, accounts for only 3 percent of domestic textile consumption.

7. See testimony of Walter Lenahan, Deputy Assistant Secretary, Department of Commerce, before the Subcommittee on Commerce, Consumer, and Monetary Affairs of the Committee on Government Operations, March 6, 1985.

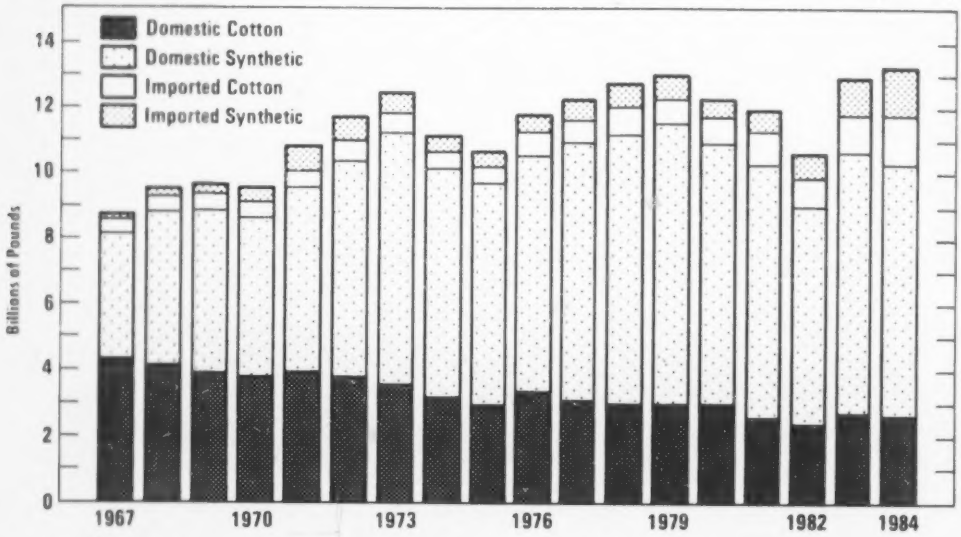
TABLE 1. IMPORT SHARES OF TEXTILE SUPPLY (In percents)

| Year | By Product and Measured in Value a/ | | By Material and Measured in Pounds | | | |
|---|---|---|---|---|---|---|
| | Textile | Apparel | Cotton | Synthetics | Wool | Total |
| 1972 | 4.6 | 6.6 | 13.6 | 9.9 | 19.7 | 11.5 |
| 1973 | 4.4 | 7.0 | 13.3 | 7.6 | 19.9 | 9.8 |
| 1974 | 4. | 7.4 | 13.2 | 6.4 | 20.4 | 8.9 |
| 1975 | 3.4 | 8.1 | 14.2 | 6.5 | 17.9 | 9.2 |
| 1976 | 3.7 | 10.1 | 17.2 | 7.3 | 22.3 | 11.0 |
| 1977 | 3.5 | 9.8 | 17.4 | 7.6 | 28.8 | 11.1 |
| 1978 | 4.2 | 11.8 | 21.8 | 8.1 | 30.3 | 12.6 |
| 1979 | 3.9 | 12.1 | 19.6 | 7.8 | 27.8 | 11.6 |
| 1980 | 4.1 | 12.5 | 20.9 | 6.6 | 26.3 | 11.5 |
| 1981 | 4.7 | 13.5 | 26.2 | 8.0 | 27.3 | 13.9 |
| 1982 | 4.4 | 13.6 | 26.7 | 9.9 | 32.4 | 15.6 |
| 1983 | 4.6 | 15.1 | 28.8 | 12.4 | 33.5 | 17.8 |
| 1984 | 5.9 | 19.9 | 35.1 | 15.8 | 36.8 | 22.3 |

SOURCE: Congressional Budget Office based on data from the Department of Commerce.

a. The import shares are based on the dollar values of shipments at the two-digit, Standard Industry Classification level and the dollar values of imports. The values of domestic shipments are overstated and thus, the product import shares are understated. This discrepancy occurs because some output is counted twice and some imports are reported as domestic shipments. Nevertheless, the data provide a good indication of the trends in imports' shares of domestic supply.

Figure 1.
Cotton and Synthetic Textile Products (Domestic Production and Imports)




SOURCE: Congressional Budget Office based on data supplied by Department of Commerce.

## THE EVOLUTION OF PROTECTION IN THE TEXTILES AND APPAREL INDUSTRIES

Since quotas were imposed on Japanese cotton textiles in the 1950s, the level of protection has ratcheted steadily upward to include an increasing number of exporting countries and a growing variety of textile and apparel products. 8/ Beginning in 1974, textile and apparel quotas have been administered under guidelines established in the Multifiber Arrangement (MFA). Rather than being an entirely new creation, the MFA was an extension of the diverse bilateral agreements that preceded it. The precise goals in developing these agreements, however, were not always clear.

8. This section draws heavily on the following sources: D. Keesing and M. Wolf, *Textile Quotas Against Developing Countries* (London: Trade Policy Research Centre, 1980); U.S. International Trade Commission, *The Multifiber Arrangement, 1980-84*, Publication 1693 (Washington, D.C.: ITC, May 1985); "Protecting the Textile and Apparel Industries," Staff Working Paper, Congressional Budget Office, September 1985; D. Curzon and others, *MFA Forever?* (London: Trade Policy Research Centre, 1981).

## The Goals of Protection

Since protection in the textile and apparel industries evolved administratively over a period of 30 years, its precise goals are not always easy to identify. It is entirely plausible that the goals changed over the years and that policymakers at any particular time did not share a common objective. Nonetheless, it is possible to distinguish between three broad--and often inconsistent--views of what protection was meant to do.

In one view, protection was meant to be a temporary measure, which would cease to be necessary once U.S. producers found a means of meeting foreign competition. It is difficult, however, to show that this was what was intended when the industries were first protected or at any subsequent point. One might note, however, that President Kennedy's initial decision to seek a multilateral forum to control textile trade was part of a seven-point program that, among other things, was designed to increase the industries' competitiveness. 9/

A second possible goal of protection--one that was articulated in the philosophy of the MFA--was to give the industries time to adjust to the growth of imports. Rather than revitalizing the textile and apparel industries in the developed countries, the MFA is designed to allow them to contract in a more orderly fashion than they would in a free trade environment.

A third possible goal is permanent protection. Although the various bilateral restraint and multilateral agreements have specific expiration dates, they are inevitably renewed. As a consequence, for all practical purposes, the agreements have become permanent, which is undoubtedly what many segments of the industry sought. 10/ This goal has apparently gained additional supporters. The Trade and Textile Enforcement Act of 1985, which was vetoed by President Reagan, placed tighter and more permanent restrictions on textile and apparel trade than does the MFA.

## The Long-Term Agreement

Spurred by rising imports and the filing of a number of "escape clause" petitions, the United States negotiated voluntary export restraints with

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9. See International Trade Commission, *The History and Current Status of the Multifiber Arrangement*, Publication 850 (Washington, D.C.: ITC, January 1978), p. 7.

10. See, for example, R. Buford Brandes, *The Making of Textile Trade Policy 1935-1981* (Washington, D.C.: American Textile Manufacturers Institute, 1982).

Japan for cotton textiles in 1956. The U.S. action was in part a response to domestic price supports for cotton that required domestic producers to pay in excess of world cotton prices. This reduction of imports from Japan, however, encouraged firms in Korea, Hong Kong, and Taiwan to increase their shipments of textiles to the United States. Consequently, the United States called a conference of textile importing and exporting countries, under the auspices of the General Agreement on Tariffs and Trade. This meeting resulted in the Short-Term Agreement Regarding International Trade in Cotton Textiles, which was adopted in 1961 and established rules to limit imports of specific categories of textiles to prevent undue disruption of established industries.

In 1962, this agreement was replaced, with some revisions, by the Long-Term Agreement (LTA). Under the LTA, in situations of market disruption, bilateral agreements could be negotiated to restrict imports of specific products. Market disruption was said to occur if all the following took place: (a) rapid growth in imports of a given product; (b) prices substantially below those for domestic substitutes; and (c) serious damage (actual or threatened) to domestic producers. Such restraints were to be temporary and to be set at no less than the previous year's import level. Moreover, the agreements were to allow the quotas to grow at an annual rate of at least 5 percent. By 1972, the United States had negotiated 30 bilateral agreements under the LTA.

The LTA provided, however, only limited protection. First, source switching remained a problem; it was not until the end of the 1960s that all the significant suppliers of cotton textiles were subject to restraint. 11/ But a more important reason for its ineffectiveness was the rapid growth of synthetic textile products. Articles of clothing or fabric that contained less than 50 percent cotton (by weight or value) were exempt from LTA regulation. U.S. imports of man-made fiber goods increased tenfold between 1960 and 1970, at which time imports of man-made textile and apparel products exceeded imports of cotton. Products of synthetic fibers are good substitutes for those made with cotton, and this substitution limited the benefit of the LTA to the industry.

## The Multifiber Arrangement

In 1971 and 1972, the United States negotiated bilateral "voluntary" export restraint agreements for synthetic textile products, as well as wool, with

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11. Andrew Loewinger, "Textile and Apparel Trade," in Gary Hufbauer, ed., *U.S. International Economic Policy 1981: A Draft Report* (Washington, D.C.: International Law Institute, 1982), pp. 6-7.

the major exporters--Japan, Hong Kong, Korea, and Taiwan. These agreements ultimately led to the adoption of the Arrangement Regarding International Trade in Textiles, also known as the Multifiber Arrangement (MFA). 12/ The MFA, which came into effect in 1974, established a set of rules by which developed countries could regulate imports of textiles and apparel made of cotton, wool, and man-made fiber. It has been renewed three times, most recently in 1986 when products of silk, linen, and ramie were, for the first time, included in the arrangement. Under the guidelines of the MFA, the United States has negotiated bilateral agreements with 35 countries.

Like the previous agreements, the MFA was the subject of negotiation and compromise between countries whose interests were frequently in direct conflict. Exporting countries sought consistent and predictable access to markets in developed countries, while importing countries wished to protect domestic producers of textiles and apparel and their employees. Under the MFA, countries may restrain imports of such products under conditions that could be classified as causing or threatening "market disruption." 13/ Restraints take the form of renewable, temporary bilateral agreements (or, occasionally, unilateral restrictions) governing the exports of specific categories of products from individual countries.

While allowing countries to limit textile and apparel imports, the MFA includes provisions that ensure market access for exporting countries. For example, under the original MFA, the quotas were flexible--within specified limits countries could shift unused quota rights in one category to a filled category. They could also borrow quota rights from future years as well as use unused quota rights from previous years. In addition, the quotas were required to grow by not less than 6 percent per year, which is much higher than the demand could be expected to grow in the importing countries. In the two subsequent extensions of the MFA, however, the provisions favorable to exporters were tightened for the largest suppliers. For these countries, restraints may now be invoked under much more relaxed conditions, and agreements need not contain liberal flexibility or growth provisions.

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12. The complete text of the Multifiber Arrangement and some subsequent amendments may be found in International Trade Commission, *The Multifiber Arrangement, 1980-84*, Appendix A. A useful history of the Arrangement may be found in Organization for Economic Cooperation and Development, *Textile and Clothing Industries* (Paris: OECD, 1983), Annex III.

13. The text of the agreement, along with subsequent protocols of extension, is contained in International Trade Commission, *The Multifiber Arrangement, 1980-84*, Appendix A.

### Other Features of Protection

In addition to the existence of the multilateral agreement, protection in the textile and apparel industries is unique in several other important respects. First, although each increment in protection was initially considered to be temporary, protection of textiles and apparel has been allowed to lapse (or even be relaxed) in very few instances, and has by now achieved a quasi-permanent character.

Second, the system of textile and apparel protection, as it has evolved over the past 30 years, is significantly more complicated in its operation than protection in other industries. Restrictions take the form of fixed limits on certain products, flexible export limits on other products, and limits on aggregate exports at several different levels. A summary of the quotas by product and country requires almost 170 pages. 14/

Finally, in addition to quantitative restrictions, textiles and apparel have the highest tariff protection of any manufacturing sector. The two industries have been less affected by previous rounds of multilateral tariff reductions than other industries. In 1983, the average trade-weighted tariff rate was 21.3 percent for textile and apparel as compared with 5.5 percent for all dutiable imports. Tariff rates are highest for apparel and products of man-made fibers.

## THE EFFECT OF THE MFA ON IMPORTS

By increasing the types of products that could be covered by restraint agreements, the MFA permitted a significant tightening of restrictions on imports of textile products. As has been previously noted, four major exporting countries of synthetic textile products agreed to limit their shipments to the United States several years before the MFA was ratified in 1974. These agreements were retroactive to October 1971. Nevertheless, the restraint agreements did not have much effect on imports of textile products of man-made fibers through the 1970s. In fact, they seemed to have a larger effect on imports of cotton textile products, most notably apparel. With the surge of imports in the 1980s, the agreements began to restrain a wider set of products including an increasing number of apparel items of man-made fibers.

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14. See "Summary of Agreements," International Trade Administration, U.S. Department of Commerce, May 1985. As one group of authorities on the MFA put it, "the (system of textile protection) is so opaque that...informed public debate is virtually precluded." Curzon and others, *MFA Forever?* p. 29.

The 1972-1980 Period

Imports of textiles and apparel declined significantly around the time that the United States extended its protective net beyond cotton products. Between 1972 and 1975, imports of man-made fiber textile products fell by 42 percent and imports of cotton textile products declined by 31 percent (see Figures 2 and 3). The newly negotiated agreements, however, contributed little to this decline.

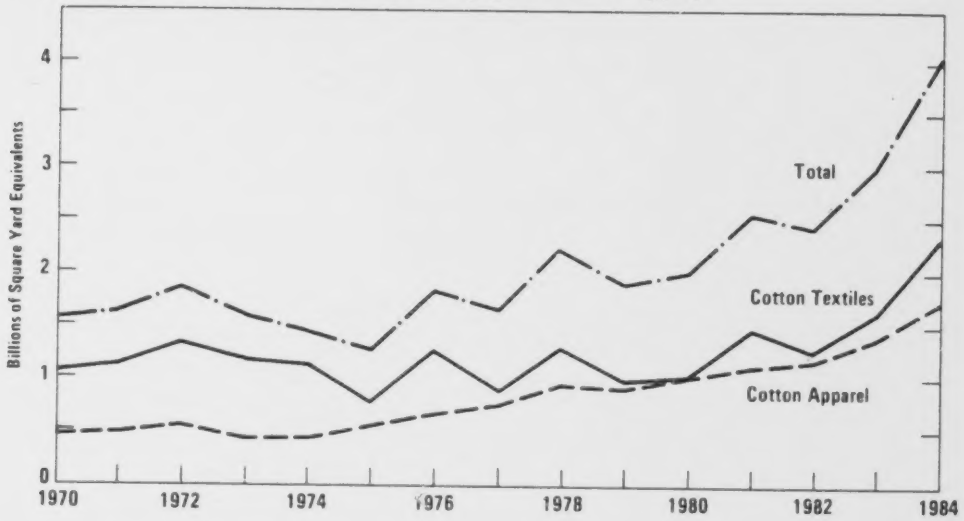
Textiles. The bulk of the decrease in synthetic textile products, as well as a large share of the drop in cotton textile products, was accounted for by a precipitous fall in imports from Europe, which have never been covered by quotas. In addition, imports of synthetics from Japan declined by nearly 40 percent; the quotas that were negotiated with the Japanese largely limited future growth and did not require such substantial reductions in exports to the United States. Even imports of man-made fiber textile products from Hong Kong, Korea, and Taiwan were 14 percent lower in 1975 than they had been in 1972.

The import surge of the early 1970s was the result of an increased demand for fabrics of synthetic fibers; at the same time that imports were expanding, domestic output increased at an average annual rate of 12 percent between 1967 and 1972. In fact, the increase in the quantity of domestic production of synthetic textiles products during this period was five times as large as the increase in the quantity of imports. The combination of additional domestic capacity, a recession-induced decline in demand, and the devaluation of the dollar were apparently the major factors behind the precipitous drop in imports. Imports increased between 1975 and 1977 and then declined so that the quantity of imports of man-made fiber textiles was roughly the same in 1980 as it had been in 1975. Further depreciation of the dollar in 1978 and 1979 undoubtedly contributed to the decline. It was not until 1984 that the quantity of synthetic textile products reached the levels that had prevailed in the early 1970s. Overall, the restraint agreements did not significantly reduce the level of synthetic textile imports.

The decline in cotton textile imports between 1972 and 1975 was also largely the result of a decline in shipments of yarns and fabrics. Unlike the case of synthetics, this decline proved to be transitory. By 1976, imports of cotton textiles had rebounded to levels near what they had been in 1972.[15] Nevertheless, it was not until 1981, that imports of cotton tex-

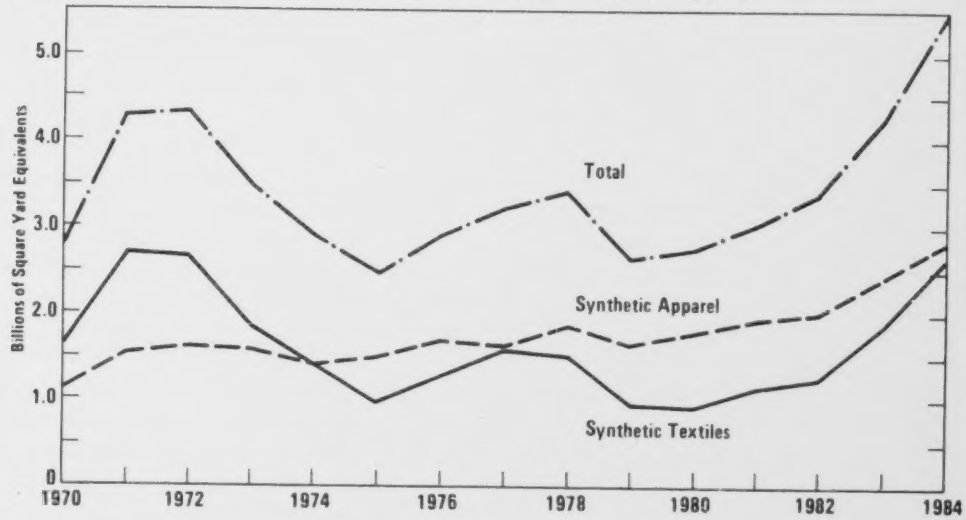
15. Imports of textile products include apparel, yarn, fabric, made-ups, and industrial products. Made-ups are primarily household furnishings such as sheets and towels. In 1972, made-ups accounted for 12 percent of cotton imports, yet only 3 percent of synthetic textile imports.

Figure 2.
## Imports of Cotton Textile Products (By Product Type)




SOURCE: Congressional Budget Office based on data supplied by the International Trade Commission.

Figure 3.
## Imports of Synthetic Textile Products (By Product Type)




SOURCE: Congressional Budget Office based on data supplied by the International Trade Commission.

tiles exceeded the levels of 1972. One indication of competitiveness in the textile industry is that, between 1975 and 1980, the value of domestic exports of textile mill products (SIC 22) exceeded that of imports.

Apparel. The restraint agreements apparently had a larger impact on imports of apparel products, most notably those of cotton. Between 1972 and 1980, imports of cotton apparel grew at an annual average rate of 7.9 percent, while apparel of man-made fibers grew by only slightly more than 1 percent per year. 16/ The relatively rapid growth in cotton apparel imports suggests that the MFA provided room for significant expansion. 17/ Moreover, the substantial disparity between the growth rates of apparel made from cotton and man-made fibers suggests that the MFA was not a significant factor in limiting imports of apparel made from synthetic fabrics. Since apparel made with different fibers compete with one another, the slack in the synthetic apparel quotas limited the impact of the quotas on the cotton apparel markets.

Comparing the growth rates of imports from the "Big Three" (Hong Kong, Korea, and Taiwan) with other countries provides further evidence that the quotas restrained imports of apparel made of cotton but not of man-made fibers. The MFA should have had its greatest impact on imports from these large exporters of textile products to the United States, which were among the first to have restraint agreements covering synthetic textile products.

Under the MFA, the United States can restrict imports from a country if there has been a market disruption, but the restraints are generally limited to the particular products involved. For some of the larger countries, however, the United States has negotiated limits on total imports. In the initial years of an agreement, a country's shipments of a restrained

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16. Most synthetic fibers are used in blends with cotton. Textile products are classified as being either synthetic or cotton depending on which is the principal fabric based on value. Firms may adjust the fabric content of their output to gain maximum use of the quotas. Moreover, there were some apparel products of synthetic fibers from some countries that were restrained.

17. Cotton apparel imports declined by 20 percent in 1973 and remained at the same level in 1974. Thus, between 1974 and 1980, imports of cotton apparel increased at an average annual rate of 14.4 percent. Apparel of man-made fibers fell by 10 percent between 1972 and 1974 and then grew at annual average rate of 3.7 percent between 1974 and 1980. They were four percent lower in 1980 than they had been in 1978, the peak import year during this period.

product to the United States are generally permitted to increase in excess of the long-term quota growth rate of 6 percent per year. In contrast, restrained products from larger exporters are frequently permitted to grow at significantly slower rates. If the restraints are binding, therefore, imports from the Big Three should grow less rapidly than imports from other sources.

Between 1973 and 1980, cotton apparel imports from Hong Kong, Korea, and Taiwan grew at an average rate of 8.1 percent compared with an 18 percent annual increase from other countries (see Table 2). In the case of apparel of man-made fibers, imports from the Big Three increased at an average annual rate of 5.2 percent during this period, while imports from other sources declined. The slower growth of Big Three cotton apparel imports compared with cotton apparel imports of other countries supports the conclusion that their imports were constrained. On the other hand, the quotas apparently had a much smaller effect on apparel imports made of synthetic fibers. 18/

## The Post-1980 Period

The domestic industry was in the forefront of developing cotton-synthetic textile blends, and it competed successfully in world textile markets throughout the 1970s. As previously noted, the United States ran a trade surplus in textiles (but not apparel) during much of this period. With the dissemination of the technology for producing synthetic fabrics, the quality of textiles produced by firms in developing countries improved, and they achieved increasing acceptance by domestic consumers. The appreciation of the dollar also aided exporters to the United States. Consequently, the growth rate of imports of textile products accelerated to an average annual rate of 19 percent between 1980 and 1984. 19/ Imports of textiles of man-

18. See Morris Morkre, *Import Quotas on Textiles: The Welfare Effects of United States Restrictions on Hong Kong*, Bureau of Economics Staff Report to the Federal Trade Commission (Washington, D.C.: FTC, August 1984). This study reports, for example, that there was a positive quota price for women's blouses of man-made fiber in Hong Kong during 1980; the other eight quota prices considered were for cotton apparel products.

19. For both fabrics, imports were higher in 1978 than in 1980; imports of synthetic textile products fell by a greater amount. The average annual growth rates between 1978 and 1984 were 10.7 percent in the case of cotton and 8.4 percent in the case of synthetic textile products. See International Trade Commission, *U.S. Imports of Textile and Apparel Products under the Multifiber Arrangement, 1981-1984*, Publication 1767 (Washington, D.C.: ITC, October 1985). For a discussion of the impact of MFA quotas on particular products in 1980 and 1983, see International Trade Commission, *The Multifiber Arrangement*, pp. 57-72.

made fibers grew at an average annual rate of 29 percent, while apparel imports of man-made fibers grew by 12 percent per year. Imports of cotton textiles and apparel increased at average annual rates of 23 percent and 15 percent, respectively.

The rapid increase in imports during the 1980s provides further evidence that the quotas did not provide significant protection during the 1970s. If the quotas had been binding then, the subsequent growth of imports during the 1980s could not have been as rapid. Moreover, the rate of growth of Big Three imports, while greater than it had been in the 1970s, lagged the growth in imports from other sources. As a result, the Big Three's share of imports of cotton textile products fell from 39 percent in 1980 to 32 percent in 1984; it had peaked in 1977 at 47 percent (see Figure 4). "Other Countries" (that is, not including the Big Three, Japan, or Europe) accounted for 65 percent of the increase in cotton textile imports between 1980 and 1984.

The Big Three's share of imports of man-made fiber textile products fell from its 1980 peak of 50 percent to 39 percent in 1984 (see Figure 5). Undoubtedly aided by the strength of the dollar, imports from Europe, which have never been restrained by quotas, more than tripled between 1980 and 1984, while imports from other countries (excluding Japan) increased by 150 percent.

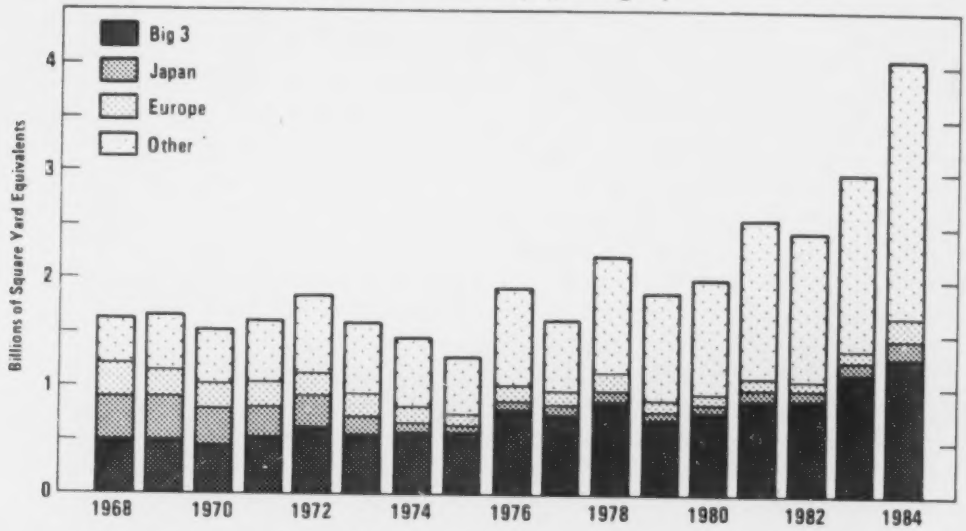
TABLE 2. APPAREL IMPORTS BY COUNTRY
(In millions of equivalent square yards)

| Country | Cotton | | | Man-Made Fibers | | |
|---|---|---|---|---|---|---|
| | 1973 | 1980 | 1984 | 1973 | 1980 | 1984 |
| Big Three | 294.6 | 508.3 | 664.0 | 876.5 | 1,252.7 | 1,727.9 |
| Other | 154.3 | 495.8 | 1,069.2 | 704.7 | 533.9 | 1,097.7 |
| Total | 448.9 | 1,004.1 | 1,733.2 | 1,581.2 | 1,786.6 | 2,825.6 |

SOURCES: Congressional Budget Office based on data from the International Trade Commission.

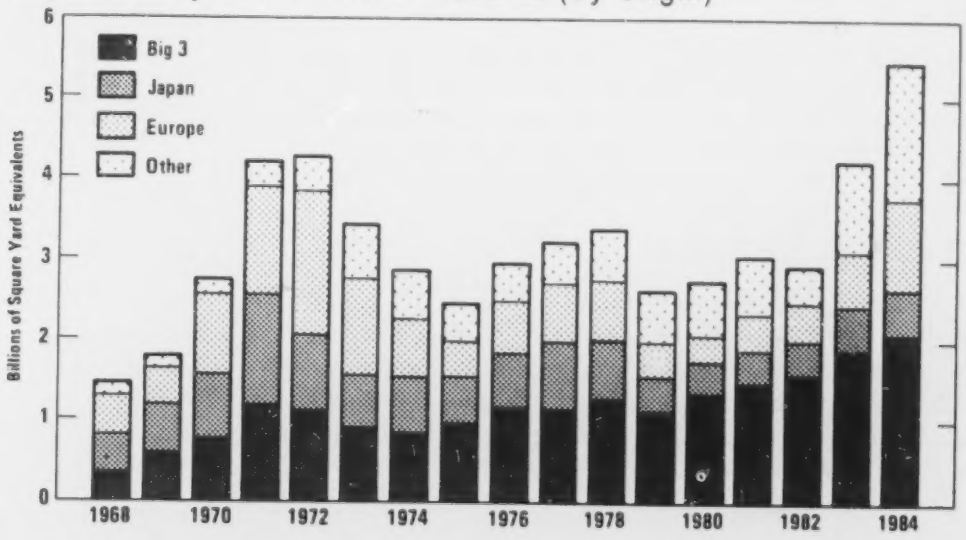
NOTE: The Big Three countries are Hong Kong, Korea, and Taiwan. "Other Countries" do not include the Big Three, Japan, and Europe.

Figure 4.
## Imports of Cotton Textile Products (By Origin)




SOURCE: Congressional Budget Office based on data supplied by the International Trade Commission.

Figure 5.
## Imports of Synthetic Textile Products (By Origin)




SOURCE: Congressional Budget Office based on data supplied by the International Trade Commission.

During the 1980s, there was also a shift in the composition of imports toward textiles and away from apparel. Since most developing countries are relatively more efficient in producing apparel than other textile products, the disparity in growth rates suggests that the quotas restrained apparel imports during this period.

Finally, during the 1980s, imports of apparel of ramie, linen, and silk have gone from less than 1 percent of imports to 10 percent in 1985. These fibers were not covered by the MFA, and their rapid growth undoubtedly indicates that the negotiated quotas are restricting imports of products of cotton, synthetic fibers, and wool. Since ramie, linen, and silk products are substitutes for the restrained products, their growth has limited the impact of the quotas on domestic producers.

## THE EFFECT OF THE MFA ON THE DOMESTIC INDUSTRY

Throughout the 1970s, the MFA's quotas on textile and apparel products apparently did not substantially reduce the supply of foreign textile products, and therefore did little to aid the domestic industry. Clearly, the restraints limited imports of some products and they limited total imports from some countries as well. There was, however, a sufficient number of unconstrained products and countries to mitigate the effectiveness of the quotas. In the 1980s, despite the more rapid rate of increase in imports, the restraint agreements probably provided more protection. As a result, domestic output and prices were somewhat higher than they would have been without the MFA. Nevertheless, the MFA did not provide the industries with sufficient protection to enable producers to increase their output or prices above what they had been in the 1970s. Rather, the restraints limited the rate at which the industry contracted.

### Prices and Output

The available evidence indicates that overall the MFA had at most a small impact on the prices of domestically produced textile and apparel products. In the first place, the effect of the MFA on the prices of imported textile and apparel products was not very large. Using inter-country comparisons, one analysis concluded that between 1968 and 1978, the quotas may have raised the prices of imported clothing by 5 percent to 10 percent during periods of strong demand. [20] An econometric study found, however, that

20. See Keesing and Wolf, *Textile Quotas Against Developing Countries*, pp. 105-107.

in only 3 of 19 apparel products did the MFA have a positive impact on the prices of imports through 1979. 21/

An increase in the price of imports will only stimulate demand for domestic substitutes if buyers switch their purchases in response to higher import prices. Domestic textiles and apparel are not, however, always perfect substitutes for foreign imports. There are significant differences in the quality of materials, sensitivity to fashion trends, and the speed at which producers can respond to customer orders. In addition, imports of both textiles and apparel when measured in value were not much above 10 percent of the domestic market during most of the 1970s. Even if quotas did have a positive impact on import prices, quotas could be expected to have little effect on the prices of domestically produced items--and that is precisely what happened.

Between 1975 and 1984, the real prices of apparel and textile products, as measured by the producer price index and adjusted by the GNP deflator, each declined at about 2 percent per year (see Figure 6). The decline in prices was relatively steady, and was at approximately the same rate at which it had been between 1966 and 1975. A sharp increase in textile prices, however, took place in 1973 and 1974, which corresponded to the fall in textile imports. As previously noted, this decline in imports was largely independent of the MFA. Moreover, the increase in the price of oil (an input into the production of synthetic fibers) contributed to the higher prices. The U.S. controls on oil prices gave domestic producers an advantage vis-a-vis foreign producers. This advantage disappeared when domestic oil prices were decontrolled in 1981.

Domestic output of textile products (including both textiles and apparel) increased at an average annual rate of 0.6 percent between 1972 and 1980. Although the restraints were most effective with respect to cotton, domestic production of cotton textile products nevertheless fell at an average annual rate of 3 percent during the period--approximately the same rate at which it had fallen during the previous five years. As imports declined somewhat, domestic production of synthetic textile products increased at a 2.3 percent annual rate during the period.

Between 1980 and 1984, total domestic production fell at an average annual rate of 1.3 percent; production of domestic cotton textile products

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21. See Joseph Pelzman, "The Economic Costs of the Multifiber Arrangement" (Contract No. B91C36079), Office of Foreign Economic Research, Bureau of International Labor Affairs, Department of Labor, October 12, 1983.

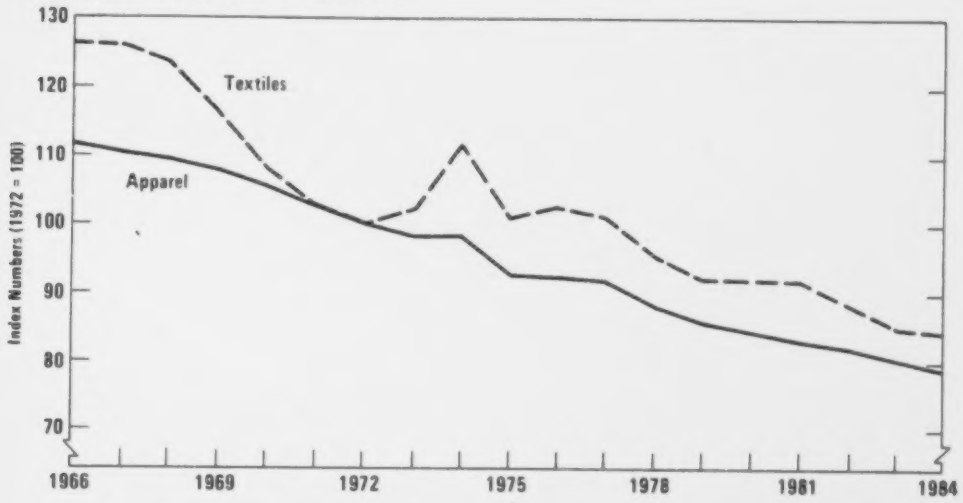
continued to fall at 3 percent per year, while synthetic textile products fell at an average annual rate of less than 1 percent.

## Profits, Investment, and Employment

Given the slow growth in output and the decline in domestic prices, profits of domestic manufacturers probably did not increase very much as a result of the MFA. This lack of increase was certainly the case for the textile industry--profits remained relatively constant throughout the 1970s and 1980s, though they varied with the business cycle (see Table 3). Through virtually the entire period, the industry's return on stockholders' equity was below that of all manufacturing. On the other hand, despite the increase in imports, the textile industry's profits as a percent of stockholders' equity improved somewhat during the 1980s; in 1983, it was more profitable than all manufacturing. There is no comparable data for apparel manufacturers.

Ironically, investment in the textile industry, which is substantially more capital intensive than apparel, declined in real terms after 1972, when the agreements limiting imports of synthetic textiles began to take effect.

Figure 6.
**Real Price of Textile Products**




SOURCE: Congressional Budget Office based on data supplied by the Bureau of Labor Statistics, Department of Labor, and American Textile Manufacturers Institute.

NOTE: Adjusted by GNP Deflator

TABLE 3. REAL PROFITS AND INVESTMENT
(In millions of 1972 dollars)

| Year | Textiles | | Apparel |
|---|---|---|---|
| | After-Tax Profits | Capital Expenditures | Capital Expenditures |
| 1960 | 478.89 | 474.67 | 121.54 |
| 1961 | 403.87 | 463.87 | 114.67 |
| 1962 | 501.35 | 533.07 | 138.93 |
| 1963 | 493.93 | 533.56 | 179.43 |
| 1964 | 696.72 | 691.91 | 168.75 |
| 1965 | 933.30 | 831.23 | 225.79 |
| 1966 | 914.54 | 1,155.94 | 268.11 |
| 1967 | 683.03 | 927.27 | 263.47 |
| 1968 | 792.34 | 836.69 | 323.72 |
| 1969 | 715.52 | 978.45 | 358.11 |
| 1970 | 451.61 | 886.93 | 327.61 |
| 1971 | 581.19 | 909.07 | 350.17 |
| 1972 | 659.00 | 1,127.40 | 363.40 |
| 1973 | 782.03 | 1,059.95 | 366.34 |
| 1974 | 677.79 | 1,016.16 | 340.11 |
| 1975 | 325.15 | 792.43 | 302.57 |
| 1976 | 609.04 | 821.75 | 319.40 |
| 1977 | 590.50 | 873.62 | 326.10 |
| 1978 | 779.15 | 901.54 | 341.71 |
| 1979 | 819.36 | 813.43 | 320.52 |
| 1980 | 555.99 | 834.16 | 340.66 |
| 1981 | 591.51 | 881.80 | 330.27 |
| 1982 | 410.36 | 756.92 | 324.57 |
| 1983 | 743.58 | 720.80 | 279.02 |
| 1984 | 731.77 | 859.33 | 375.96 |

SOURCES: Congressional Budget Office and Department of Commerce.

NOTE: Adjusted by GNP Deflator.

Capital expenditures in the apparel industry declined after 1973, although the subsequent fall was not as large as in the textile industry. Investment in the apparel industry surpassed the 1973 level for the first time in 1984.

Protection was probably not a significant factor in either the increased investment that took place during the 1960s or the decline in the 1970s. Starting in the early 1960s, innovations in the production of synthetic fibers led to the introduction of new textile machinery. The production of these new fibers meant that downstream equipment--for example, weaving and knitting mills--could be redesigned to take advantage of the properties of the new materials, most notably their greater uniformity. 22/ Second, the demand for synthetic textiles--not only for use in apparel but also for industrial and home furnishings uses--grew quite rapidly. Manufacturers thus had a strong incentive to increase production capacity of synthetic textile products. Since most of the protection during this period was for cotton textiles, whereas most of the new investment was in synthetics, it seems implausible to attribute much of the investment boom to protection.

Although the restraints did not lead to increased investment, gains in productivity, relative to all manufacturers, improved after the restraints were extended to include synthetic products in the early 1970s. Between 1963 and 1972, textile productivity increased at an average annual rate of 4 percent, apparel productivity by 2.5 percent, and the productivity of all manufacturing by 2.6 percent. Between 1972 and 1982, increases in productivity were 3.7 percent, 2.1 percent, and 1.7 percent, respectively. 23/

Given the decline in output and the increased productivity of workers, employment has contracted in both the textile and apparel industries. The declines in employment, however, have been moderate. Between 1972 and 1984, total employment in the apparel industry had fallen at an annual rate of less than 1 percent a year; in 1984 apparel firms employed over 1.2 million people. During the same period, employment fell at an average rate of 2 percent per year in the textile industry, which had 737,000 employees in

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22. For the results of engineering studies on the rapid pace of technical change on various types of machinery, see Organization for Economic Cooperation and Development, *Textile and Clothing Industries: Structural Problems and Policies in OECD Countries* (Paris: OECD, 1983), p. 19. The report also concludes that technical progress was much more rapid in synthetics than in cotton products.

23. Productivity is measured as output per man-hour and is based on unpublished data from the Bureau of Labor Statistics of the Department of Labor.

1984. The decline in employment in both industries between 1980 and 1984 has been sharper than it has been in the earlier period. It declined an average annual rate of 1.2 percent and 3 percent in the apparel and textile industries, respectively. Throughout this period, real wages did not increase appreciably in either industry, and they remain among the lowest of any manufacturing sector of the economy.

While employment in both industries has declined somewhat, imports have not caused an abrupt contraction in the industry. Although many firms have exited, existing firms have expanded and other firms, most notably apparel manufacturers, have entered. Firms in the textile and apparel industries face competition from domestic as well as foreign producers. Indeed, domestic competition and the shift of domestic resources among regions of the country have undoubtedly been as significant as foreign competition in causing dislocations in the industry. For example, during the 1950s, when the share of imports was quite low, textile production shifted from New England to the Southeast United States, where wages were significantly lower. In unconcentrated and competitive industries like textiles and apparel, such "dislocations" are to be expected even without import competition.

## CONCLUSION

The textile and apparel industries have had some type of quantitative restrictions on imports for over 30 years, far longer than any other domestic industry. Given the labor-intensive production process, it is clear that in producing many products, most notably apparel, domestic firms are at a comparative disadvantage to producers from low-wage countries. Consequently, if the level of protection is relaxed, the share of imports would increase.

The domestic industry has made significant strides in introducing new products, increasing productivity, and decreasing their costs. More than the MFA, these factors were critical to the industry's relative success during the 1970s. Technological progress, however, is not limited to developed nations. Other countries have acquired the machinery and expertise to increase the quality of their products and lower their costs. In addition, improvements in communication, transportation, and finance have lowered the cost of developing foreign sources of supply.

The growth in imports of textile products was undoubtedly given a substantial boost by the rapid appreciation of the dollar between 1980 and 1984.

With its decline, the competitive pressures on domestic firms will undoubtedly ease somewhat. Nevertheless, a technology is not currently available to erase the existing cost differential between domestic apparel producers and those in developing countries. In fact, domestic producers are increasingly adopting practices that make the most of their principal advantage--proximity to buyers. Textile manufacturers are shortening production runs so that they can be more responsive to changes in demand and tastes. 24/ In addition, domestic textile and apparel firms are developing closer relations so that they can more quickly respond to orders from retailers who can thereby reduce their inventories. Moreover, a number of mergers have taken place in the industry as domestic firms attempt to achieve multiplant economies. 25/

24. See "Holding its salvation in its own hands," *The Economist* (April 5, 1986), pp. 79-82; also see "Textiles Get Competitive," *National Journal* (June 7, 1986), pp. 1360-1365.

25. See "Textile Companies Rapidly Stake Out Niches, *The Wall Street Journal*, February 5, 1986, p.6.

## CHAPTER III

# STEEL

On three separate occasions, the U.S. government has provided the domestic steel industry with protection from import competition. In the late 1960s, the United States negotiated voluntary restraint agreements with Japan and the European Economic Community. In the late 1970s, in response to a rash of dumping complaints, the United States introduced a trigger price mechanism that subjected countries that sold steel below specified levels to accelerated dumping investigations. In 1984, after the International Trade Commission concluded that the industry had been injured by import competition, the Reagan Administration negotiated voluntary restraint agreements with a number of steel exporting countries.

Accompanying all three cases was the hope that protection would give the industry the time and resources to compete more effectively with foreign producers. Clearly, the first two episodes of protection did not achieve this goal. Without protection, the share of imports grew, and the industry was ultimately able to secure additional relief. Since the latest round of protection is still in its early stages, it is premature to determine its effects.

By increasing profits, protection is supposed to provide an industry with the resources needed to modernize. Neither the voluntry restraint agreements nor the the trigger price mechanism, however, increased industry's profits by much above what they had been before the steel measures had been imposed. Moreover, given the sources of the industry's cost disadvantage, it is doubtful that higher investment would have substantially increased the industry's competitiveness.

## TRACING THE COMPETITIVE STATUS OF THE DOMESTIC STEEL INDUSTRY

Historically, the steel industry was one of the most profitable sectors of the American economy. Its market structure was shaped by a series of mergers in the late nineteenth century that, among other things, created the United

States Steel Corporation. 1/ At first, U.S. Steel accounted for 65 percent of the industry's production, but it gradually ceded the bulk of its market share to other domestic producers. By 1960, its market share had declined to 28 percent. Nevertheless, through much of this period, it was widely acknowledged to have orchestrated pricing in the industry, and steel manufacturing was among the most profitable sectors of the economy.

The fortunes of the industry declined as domestic steel consumption stopped rising and imports expanded. In fact, since the mid-1970s, steel consumption has fallen not only in the United States but in most other developed nations as well. This decline in consumption in the developed nations resulted from a variety of factors including (1) reduced infrastructure construction, (2) increased role of services, and (3) greater use of substitute materials such as plastics and aluminum. 2/ Imports had been a negligible factor in the domestic market during the 1950s, but they accounted for more than 25 percent of domestic consumption in 1984. Their share declined in 1985, largely because of the most recent episode of protection.

The key to the success of the foreign producers has been their lower costs, most notably lower wages. One study estimated that in 1984 the cost of manufacturing cold rolled carbon steel was 28 percent higher in the United States than in Japan and 20 percent higher than in Brazil. 3/ Labor costs accounted for the bulk of the cost differential, though foreign producers also had significantly lower costs of raw materials. Since production facilities in the United States are older, the capital costs (which include profits, interest, and depreciation) of manufacturing steel in domestic plants

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1. U.S. Steel, which acquired several oil companies in the 1980s, changed its name to USX in 1986.

2. For a discussion of this issue, see David Tarr, "Steel Crisis in the United States and the European Community: Causes and Adjustments," presented at a conference on Europe-United States Trade Relations, sponsored by the Centre for European Policy Studies and the National Bureau of Economic Research, and to be included in a forthcoming conference proceeding edited by Robert Baldwin and others.

3. These calculations assume that the plants are operating at 90 percent of capacity. Japanese steel manufacturers operate at a higher rate operating rate; when costs are compared using the actual operating rates, the cost differences will be even greater. See Robert W. Crandall, "Rationalizing the U.S. Carbon Steel Industry: A Critical Perspective," in Gary Hufbauer and Howard Rosen, eds., *Domestic Adjustment and Escape Clause Relief* (Washington, D.C.: Institute for International Economics, forthcoming.) Also see International Trade Commission, *Foreign Industrial Targeting and its Effects on U.S. Industries, Phase I: Japan*, Publication 1437 (Washington, D.C.: ITC, October 1983), p. 197.

are significantly lower. In 1982, domestic labor productivity was lower than it was in the Japanese industry. 4/ Other studies have come to similar conclusions about the differences in costs between United States and Japanese producers. 5/

While the production costs of domestic integrated steel manufacturers exceed those of efficient foreign producers, domestic nonintegrated steel producers, or minimills do not have higher costs than foreign producers with similar facilities. In addition to semi-finished and finished steel products, an integrated steel mill makes raw steel from iron ore and coke. Other steel-making facilities, most notably minimills, do not produce pig iron but use scrap to make a narrower range of steel products. Consequently, minimills can operate efficiently at a relatively small scale, and they are often built to serve the needs of a particular local market. Finally, because of lower wage rates and more flexible work rules, their labor costs are substantially lower than those of integrated producers. Despite the decline in domestic steel consumption, the share of domestic steel production by minimills has increased from 3 percent in 1960 to 20 percent in 1980. 6/ In addition, they have been more profitable than the integrated producers. 7/ Since the primary impetus for trade protection has been to aid the integrated producers, however, this analysis will focus on that sector of the industry.

## Labor Costs

Ironically, imports have contributed to the relatively high wages in the steel industry. Imports more than doubled in 1959, when domestic steel production was dramatically reduced by a four-month strike (see Figure 7). In 1965, 1968, and 1971 (all contract expiration years), steel users stockpiled

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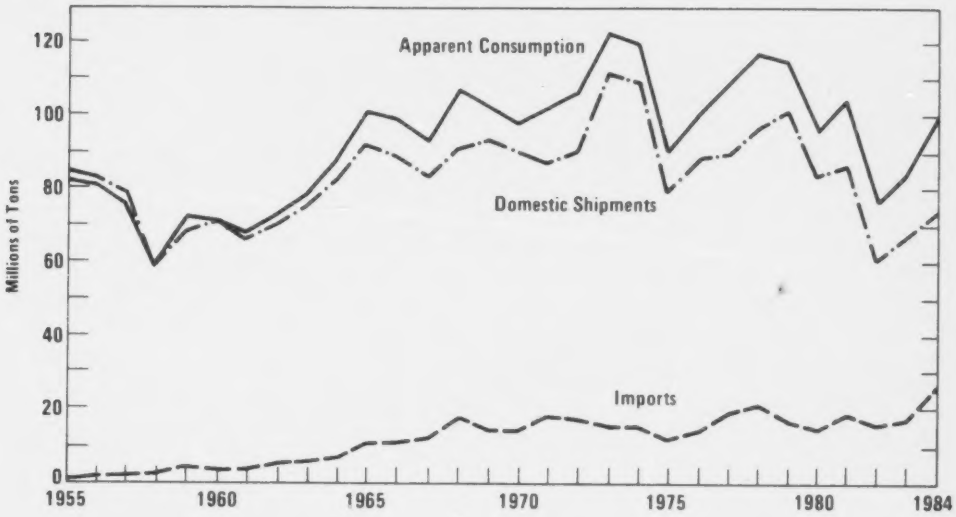
4. Unpublished data of the Bureau of Labor Statistics, Department of Labor.

5. See Congressional Budget Office, *The Effects of Import Quotas on the Steel Industry* (July 1984), pp. 21-29. Also see National Academy of Engineering, *The Competitive Status of the U.S. Steel Industry* (Washington, D.C.: National Academy Press, 1985), pp. 46-80.

6. See Congressional Budget Office, *The Effects of Import Quotas on the Steel Industry*, p. 6.

7. See Congressional Budget Office, *The Effects of Import Quotas on the Steel Industry*, p. 29. Also see David G. Tarr, "Does Protection Really Protect?" in *Regulation* (November 1985), p. 32.

Figure 7.
Apparent Domestic Steel Consumption




SOURCE: Congressional Budget Office based on data supplied by Department of Commerce

steel in anticipation of strikes.[8] To end this practice, the industry and their unions reached an innovative agreement in 1973. In return for a pledge not to strike, the steel firms agreed to increase wages by 3 percent per year plus an additional amount tied to changes in the cost of living. The parties further agreed to submit any remaining collective bargaining issues to binding arbitration. While the agreement ended the threat of industry-wide strikes, it also escalated steelworkers' wages and exacerbated the industry's cost disadvantage.

During the 1960s, the hourly wage rates of domestic steel workers was about 35 percent higher than the average for employees in all other manufacturing. By 1982, this differential had increased to more than 65 percent (see Table 4). Because of subsequent wage concessions, the differential had fallen to less than 50 percent by 1984. The average hourly wage for mem-

8. In 1965, the quantity of steel imported increased by 61 percent; in 1968 by 57 percent; and in 1971 by 37 percent. In all three years, the increase in imports was substantially greater than the increase in domestic production.

TABLE 4. EMPLOYMENT AND WAGES IN THE STEEL INDUSTRY

| Year | Employment (In thousands) | Average Hourly Wages (In current dollars) | | Ratio of Steel to All Manufacturing |
|---|---|---|---|---|
| | | Steel | Manufacturing | |
| 1965 | 657 | 3.46 | 2.61 | 1.32 |
| 1966 | 652 | 3.58 | 2.71 | 1.32 |
| 1967 | 635 | 3.62 | 2.82 | 1.28 |
| 1968 | 636 | 3.82 | 3.01 | 1.27 |
| 1969 | 644 | 4.09 | 3.19 | 1.28 |
| 1970 | 627 | 4.22 | 3.35 | 1.26 |
| 1971 | 574 | 4.60 | 3.57 | 1.29 |
| 1972 | 568 | 5.16 | 3.82 | 1.35 |
| 1973 | 605 | 5.61 | 4.09 | 1.37 |
| 1974 | 609 | 6.41 | 4.42 | 1.45 |
| 1975 | 548 | 7.13 | 4.83 | 1.48 |
| 1976 | 549 | 7.79 | 5.22 | 1.49 |
| 1977 | 554 | 8.59 | 5.68 | 1.51 |
| 1978 | 561 | 9.70 | 6.17 | 1.57 |
| 1979 | 571 | 10.78 | 6.70 | 1.61 |
| 1980 | 512 | 11.86 | 7.28 | 1.63 |
| 1981 | 506 | 13.13 | 7.99 | 1.64 |
| 1982 | 396 | 14.00 | 8.50 | 1.65 |
| 1983 | 341 | 13.42 | 8.83 | 1.52 |
| 1984 | 334 | 13.53 | 9.10 | 1.47 |

SOURCE: Congressional Budget Office and Bureau of Labor Statistics, Department of Labor.

bers of the American Iron and Steel Institute, which consists of the bulk of the integrated producers, was 95 percent higher than for all manufacturing industries in 1982. 9/

When expressed as a percentage of hourly compensation, which includes such things as paid vacations and employer contributions to health insurance and pension funds, the premium that steel workers receive over others is even greater. Using this measure, steel workers received 97 percent more than the average worker in 1982 and 63 percent more in 1984. With the exception of Japan, the differential between the hourly compensation of steel workers and manufacturing employees remains greater in the United States than in other countries. 10/ The hourly compensation of domestic steelworkers, however, was 80 percent higher than for steel workers in Japan. 11/

## Production Facilities

The steel industry's relatively high wages are not the sole source of its competitive problems. In contrast to many foreign producers, the United States has relatively old production facillities. Only one new integrated steel plant has been built in the United States since the 1950s--Bethlehem Steel's Burns Harbor facility, which was completed in the late 1960s. 12/ Since the 1950s, a number of innovations have increased the efficiency of steel production, and U.S. producers have modified or retrofitted their steel plants to incorporate many of them. The vast majority of domestic integrated steel facilities originally used open-hearth furnaces to make steel. Basic oxygen furnaces proved to be far more efficient, and they have been installed in virtually all domestic plants. Other significant innovations, which have been less widely adopted by domestic manufacturers, include continuous casting and automated process controls. For the most part,

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9. See *Annual Statistical Report 1983* (Washington, D.C.: American Iron and Steel Institute, 1984).

10. This conclusion is based on unpublished Bureau of Labor Statistics data. The compensation for Japanese steelworkers was 73 percent higher than it was for workers in all manufacturing. The premium for steelworkers compared with workers in all manufacturing was 35 percent in Canada and less than 10 percent in Germany.

11. This calculation is based on a 1984 exchange rate of 237 yen to the dollar.

12. See Robert Crandall, *The U.S. Steel Industry in Recurrent Crisis: Policy Options in a Competitive World* (Washington, D.C.: The Brookings Institution, 1981), p. 74.

however, a plant that has been designed and built around these innovations (a so-called greenfield plant) will be more efficient than a plant that is retrofitted.

Japan and members of the European Common Market were largely responsible for the initial runup in imports during the 1960s. Since then, increased imports have largely come from other sources, including newly industrializing countries such as Brazil, Korea, and Mexico (see Figure 8). These countries are developing their manufacturing industries and their infrastructures, which are steel-intensive activities, and they have constructed new facilities, in part, to support these efforts. Unlike the developed countries, per capita steel consumption is increasing in these nations as their economies expand. The prestige that some nations attach to being a major steel producer may have also played a role in their investment decisions. The technology necessary to build an efficient steel facility can be readily acquired, and the steel output of developing countries has doubled since 1973. 13/ Since 1970, Japan, Canada, Britain, and France have also begun construction (in some cases with government assistance) of new integrated facilities. There are substantial economies of scale in manufacturing steel, and many of these newer facilities are quite large. 14/ For example, in 1982, only 21.5 percent of U.S. capacity was in plants that exceeded 5 million tons; in Japan almost 65 percent of its capacity was in plants that were that large. 15/

## Raw Materials

Historically, the United States enjoyed an international competitive advantage in its access to abundant supplies of relatively high-quality iron ore deposits. Domestic producers, however, have now lost this advantage because their sources of easily mined, high-quality ore have been depleted, and other sources outside North America have been developed. Most integrated steel facilities are located in the interior of the United States, and the relatively high cost of inland transportation limits their ability to use

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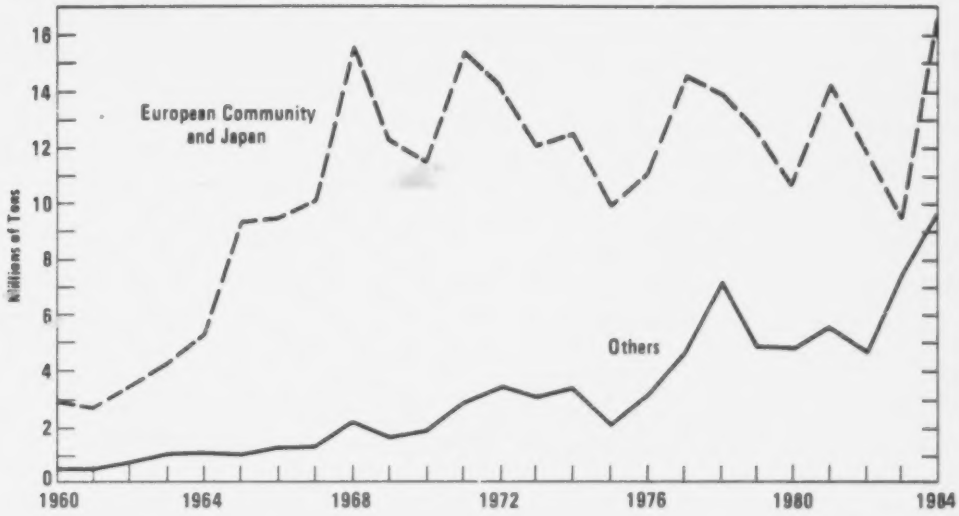
13. See Robert Crandall, "Rationalizing the U.S. Carbon Steel Industry," p. 4. See also *Costs and Benefits of Protection*, Organization for Economic Cooperation and Development (Paris: OECD, 1985), p. 64. The construction of a steel plant is a labor-intensive process. Since their labor costs are lower than in the U.S., developing countries have a cost advantage in building steel plants.

14. See Crandall, *The U.S. Steel Industry in Recurrent Crisis*, pp 11-14.

15. See Donald Barnett and Louis Schorsch, *Steel: Upheaval in a Basic Industry* (Cambridge: Ballinger, 1983), p. 58.

Figure 8.
Steel Imports by Country




SOURCE: Congressional Budget Office based on data supplied by Department of Commerce.

these sources economically. Most newer foreign steel mills are located near deep water ocean ports and do not suffer similar cost penalties. Iron ore represents roughly 15 percent of the total costs of producing a ton of steel, and U.S. producers paid almost 50 percent more per ton than Japanese in producers in 1984.[16] By contrast, in 1964, the cost of iron ore to domestic U.S. producers was about 7 percent less than to Japanese manufacturers. Domestic manufacturers continue to have a cost advantage vis-a-vis the Japanese producers with respect to coking coal; this advantage, however, has declined over time. In 1964, domestic manufacturers paid 35 percent less than the Japanese, while in 1984 they paid 16 percent less.

## PROTECTING THE INDUSTRY FROM INTERNATIONAL COMPETITION

For protection to improve the international competitiveness of a domestic industry, it must encourage the industry to reduce its costs. Generally, this

16. These cost comparisons are discussed in Congressional Budget Office, *The Effects of Import Quotas on the Steel Industry*, p. 24.

requires that domestic manufacturers invest in new technologies. Protection, by increasing the profitability of domestic firms, is supposed to make such investments more profitable. With prevailing wage rates and raw material costs, however, it is questionable whether significant segments of the industry could produce steel as cheaply as efficient foreign firms even if they had more modern facilities. In addition, the decline in domestic consumption reduces the incentives of firms to make such investments. 17/

Such a state of affairs is clearly at odds with the premise that short-term protection can fundamentally change the long-term competitive standing of the industry. Neither the voluntary restraint agreements (VRAs) nor the trigger price mechanism, however, increased profits much above what they had been before the restraints were imposed.

## The Voluntary Restraint Agreements

During the 1960s, steel imports accelerated. By 1968, they accounted for almost 16 percent of the U.S. consumption. Although domestic production had increased in the early part of the 1960s, it had leveled out by the middle of the decade. In addition, domestic steel prices and industry profits, both adjusted for inflation, began to decline.

Concerns about the influx of imported steel invoked calls for protection. In 1968, a bill was introduced in the Congress to limit steel imports to 9.6 percent of the domestic market, which was their average share between 1964 and 1966. Steel imports would have been more than 45 percent lower in 1968 if the proposed quotas had been in effect. Since there was substantial support for some type of trade restraint, the Johnson Administration was able to negotiate voluntary restraint agreements with both Japan and the European Economic Community (EEC). Specifically, each agreed to reduce exports to 5.75 million tons in 1969; both Japanese and EEC exports to the United States had exceeded 7 million tons in 1968. Under the agreement, exports were permitted to grow by 5 percent annually in each of the next two years.

In 1972, the VRAs were extended for an additional three years with several amendments. The United Kingdom joined the group of restrained countries, and the revised agreements contained limits for particular types of steel. Since the initial agreements only covered aggregate imports,

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17. For a discussion of the costs and profitability of modernizing the domestic steel industry, see Robert Crandall, *The U.S. Steel Industry in Recurrent Crisis*, pp. 81-88.

foreign suppliers shifted their mix toward higher valued products. For example, imports of stainless and alloyed steels increased in the first three years of the agreement. There was also a discernable shift of imports from hot rolled carbon steel to cold rolled carbon steel. (Cold rolled steel requires additional processing and therefore is more costly to manufacture than hot rolled steel and commands a higher price).

Quantity of Imports. While the quotas reduced imports from the restrained countries in some of the years, their overall impact was limited by three factors: stockpiling in the year before the quotas were imposed, the recession of 1970, and the world steel boom that began in 1972.

In 1969, the first year of the VRAs, imports declined by more than 20 percent. Several factors suggest, however, that the quotas were not the major reason for the decline. First, European imports were 10 percent below their quota limit. In addition, imports from unconstrained sources fell by 17 percent. When quotas restrict imports from some countries but not others, firms in unconstrained countries can be expected to increase their exports. Domestic production, however, increased by 2 percent and the imported share of apparent supply fell from 16.7 percent to 13.7 percent. The sharp decline in overall imports was probably the result of steel consumers reducing their steel inventories. In 1968, domestic consumers had increased their purchases of imported steel by 57 percent, partly in anticipation of a strike that never occurred (the possibility that quotas would be imposed may also have contributed to the stockpiling).

In 1970, the economy entered a recession, which resulted in a 5 percent reduction in imports and a 3.4 percent reduction in domestic production. Imports from both Japan and the EEC declined, and European imports represented less than 20 percent of the quota amounts. Imports from unconstrained sources, however, increased.

In 1971, as the economy recovered and another labor contract expired, imports rebounded strongly. Shipments from constrained countries rose by 30 percent, as both the EEC and Japan used unfilled quotas from previous years, which was permitted under the agreements. Imports from other sources increased by 58 percent, but still accounted for only 23 percent of imports. (They had accounted for 20 percent of imports in 1968, the year before the VRAs began.) The increase in imports exceeded the increase in consumption, and domestic production declined as a result. Despite this decline, the restraint agreements probably provided their greatest degree of protection during this year; the emerging world-wide steel boom and domestic price controls soon made them largely superfluous. With demand grow-

ing throughout the world and price controls limiting domestic prices, foreign producers found it more profitable to sell their output elsewhere. Between 1971 and 1973, European imports declined by 24 percent and Japanese imports by 18 percent. Consequently, domestic production increased by even more than the substantial increases in domestic consumption.

Prices Under Voluntary Restraints. When voluntrary restraint agreements began, the constrained countries accounted for 80 percent of imports, and by allocating market shares among the principal suppliers, they limited competition among foreign producers. A weighted average price of five imported steel products, adjusted for inflation, rose by 1.2 percent in 1969 and by 13.1 percent during 1970, a year of recession when steel imports declined (see Figure 9). 18/ The price of imported steel remained relatively constant in 1971 and 1972. It then increased by 13 percent in 1973 and by 44 percent in 1974 during the world steel boom.

The weighted average price of five domestic steel products, adjusted for inflation, declined at an average annual rate of 2.8 percent between 1965 and 1968. In 1969, the first year of the VRAs, they declined by an additional 3.4 percent. Between 1969 and 1972, real domestic prices increased at an average annual rate of 1.6 percent. The VRAs may have been a factor in reversing the price decline. Domestic prices increased by 20 percent during 1974, the peak of the world steel boom.

An International Trade Commission study concludes that, during the six years they were in effect, the VRAs increased domestic prices by an average of 3.8 percent and had their greatest effect in 1970, when they increased by 5.7 percent. 19/ It further concludes that the VRAs increased domestic production by an average of 1.7 percent and had their greatest

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18. Since substantial quantities of steel are sold at negotiated prices, a transaction measure is used in this analysis for both domestic and imported steel. The measure is derived by using a weighted average of the prices of five products: bars, cold rolled steel, hot rolled steel, plates, and structures. These products accounted for approximately 45 percent of domestic steel production and more than 50 percent of imported steel during the period. The data for imports through 1976 and for domestic production through 1979 was taken from Crandall, *U.S. Steel Industry in Recurrent Crisis*, pp. 154-155, 164-165; data for subsequent years were derived by tbe Congressional Budget Office. The Gross National Product deflator is used to remove the effects of inflation.

19. James T. H. Tsao, *Economic Effects of Export Restraints*, United States International Trade Commission Publication 1256 (Washington, D.C.: ITC, June 1982).

Figure 9.
Real Steel Prices (Domestic and Imports)

SOURCES: Congressional Budget Office; Robert Crandall, *The U.S. Steel Industry in Recurrent Crisis* (Washington, D.C.: The Brookings Institution, 1981).

NOTE: Adjusted by GNP Deflator.

effect in 1971 when they increased domestic steel production by 6 percent. The study relied on the Bureau of Labor Statistics producer price index to measure changes in steel prices. This index, however, does not adequately reflect transaction prices and most likely overstates the actual price increases. For example, between 1968 and 1970 the ITC study assumes that domestic prices increased by 11.5 percent, measured in current dollars, while the weighted average of the transaction prices of five steel products increased by 8.8 percent.

Another study, which used transaction prices, concluded that the VRAs had their largest impact in 1971 and 1972 when domestic prices were between 1.2 percent and 3.5 percent higher, and the increase in import prices was between 6.3 percent and 8.3 percent. 20/ The study further estimates that, as a result of the VRAs, domestic production was increased by roughly 3.5 percent.

Based on the foregoing discussion, it seems unlikely that, because of the VRAs, steel prices were as much as 3 percent higher than they otherwise would have been in 1970 through 1972. Moreover, VRAs apparently had an

20. See Robert Crandall, *The U.S. Steel Industry in Recurrent Crisis*, pp.103-107.

even smaller, if any, effect in the other years. A 3 percent price increase translates into $4.35 more per ton of steel because of the VRAs in 1970, $4.65 more in 1971, and $4.95 in 1972. Multiplied by the industry's production minus exports in these years, a 3 percent price increase means that the VRAs increased the industry's before-tax profits by $365 million in 1970, $390 million in 1971, and $440 million in 1972. These amounts correspond to 37 percent, 33 percent, and 27 percent of the industry's before-tax profits in the respective years. 21/

While the assumption of a 3 percent increase in price attributed to the VRAs may be too high, the restraints clearly did not raise the industry's profits above what they had been. In fact, the industry's profits in each of these three years were significantly below what they had been in current dollars since 1963 (see Table 5). Thus, although the VRAs may have raised the costs to domestic steel consumers, they did not succeed in providing the industry with additional funds for increased capital expenditures.

## The Trigger Price Mechanism

When the VRAs expired in 1974, they were not renewed. In 1975, another recessionary year, domestic production and imports each declined by roughly 25 percent. Between 1975 and 1977, as the economy expanded and the world steel boom subsided, imports grew by 60 percent, four times as rapidly as domestic production. In 1977, the quantity of imports as well as their market share surpassed their previous peaks. From its 1974 levels, the real price of imports declined by 30 percent. This drop in prices provoked a rash of complaints that foreign producers were dumping steel in the domestic market. In the meanwhile, domestic production was at the same level that it had been in 1968, before the imposition of the VRAs.

Solomon Commission. The rise in steel imports generated Congressional concern, and in 1977 a task force headed by Under Secretary of the Treasury Anthony Solomon was formed by the Carter Administration to develop a policy. The report of the Solomon Commission concluded that a cause of the steel industry's problems was the failure of the demand for world steel to increase as rapidly as capacity. Moreover, a concerted action by the

21. Profit data are from various issues of the Department of Commerce, *Quarterly Financial Report*. The data are based on the principal line of business of the reporting companies, and thus include nonsteel activities of the reporting companies.

TABLE 5. STEEL INDUSTRY PROFITS

| | Before-Tax Profits (In billions of current dollars) | After-Tax Profits (In billions of current dollars) | After-Tax Profits as a Percent of Stockholder Equity | |
|---|---|---|---|---|
| | | | Steel | All Manufacturing |
| 1960 | 1.880 | 0.945 | 7.3 | n.a. |
| 1961 | 1.589 | 0.803 | 6.1 | n.a. |
| 1962 | 1.366 | 0.720 | 5.4 | n.a. |
| 1963 | 1.761 | 0.938 | 6.9 | n.a. |
| 1964 | 2.149 | 1.225 | 8.8 | n.a. |
| 1965 | 2.412 | 1.401 | 9.8 | n.a. |
| 1966 | 2.527 | 1.487 | 10.3 | n.a. |
| 1967 | 1.816 | 1.165 | 7.7 | n.a. |
| 1968 | 1.939 | 1.186 | 7.6 | n.a. |
| 1969 | 1.940 | 1.221 | 7.6 | 11.2 |
| 1970 | 0.993 | 0.692 | 4.3 | 9.2 |
| 1971 | 1.173 | 0.748 | 4.5 | 9.5 |
| 1972 | 1.650 | 1.022 | 6.0 | 10.3 |
| 1973 | 2.781 | 1.679 | 9.6 | 12.4 |
| 1974 | 5.384 | 3.151 | 16.1 | 14.4 |
| 1975 | 3.453 | 2.283 | 10.6 | 11.3 |
| 1976 | 2.895 | 2.086 | 8.9 | 13.6 |
| 1977 | 1.055 | 0.861 | 3.6 | 13.8 |
| 1978 | 3.470 | 2.122 | 8.8 | 14.5 |
| 1979 | 3.314 | 2.186 | 8.7 | 15.8 |
| 1980 | 3.325 | 2.405 | 8.9 | 15.2 |
| 1981 | 5.725 | 3.507 | 11.3 | 13.3 |
| 1982 | -4.949 | -3.705 | -16.0 | 9.1 |
| 1983 | -4.544 | -3.746 | -18.7 | 10.2 |
| 1984 | 0.117 | -0.379 | -2.7 | 12.2 |
| 1985 | -0.811 | -1.25 | -10.2 | 10.0 |

SOURCE: Department of Commerce, *Quarterly Financial Review.*

NOTES: There was a change in reporting standards to exclude foreign operations in 1973.

n.a. = not available.

Europeans to stabilize their markets had broken down, apparently prompting these producers to market steel more aggressively in the United States. Shipments from Europe had more than doubled in 1977 and accounted for nearly 80 percent of the total increase in steel imports. In order to stem the tide of imports, the Solomon Commission recommended that reference prices be established at an efficient foreign producer's cost of delivering steel to the United States. If imported steel was priced below this level, it would be prima facie evidence that the steel was being dumped in violation of the Trade Act of 1974. An expedited antidumping proceeding would thereby be triggered, hence the name of the program. 22/ Since Japan was generally acknowledged to be the world's most efficient producer of steel, its costs were used to develop the trigger prices. 23/

While the purpose of the Commission's plan was to preserve jobs and limit dislocations stemming from imports of low-priced steel, its primary objective was to "assist the steel industry in a manner which will stimulate efficiency and enable the industry to compete fairly...This requires an increased pace of investment in modern, effficient facillities...." 24/

Effects of the Trigger Price Mechanism. In 1978, the year that the trigger prices went into effect, the real price of imports rose by 4.5 percent and by more than triple that rate the following year. 25/ During this period, there was an 11 percent decline in the real value of the dollar. Domestic prices, in constant dollars, increased at an annual average rate of 2.5 percent in those two years. Import prices, which had been 14 percent below domestic prices in 1977, were only 2 percent below the price of domestically produced steel in 1979.

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22. The Commission made a number of other recommendations. The trigger price mechanism, however, was the most significant. See "Report to the President: A Comprehensive Program for the Steel Industry," which is reproduced in *Administration's Comprehensive Program for the Steel Industry*, Hearings Before the Subcommittee on Trade of the Committee on Ways and Means, 1978.

23. The Trade Act of 1974 prohibited the sale of foreign goods in the United States below their cost. Previously, a finding of dumping was based solely on the relationship between the price in the United States and the price in the producer's home market.

24. See "Report to the President: A Comprehensive Program for the Steel Industry," p. 10.

25. The trigger prices did not apply to steel shipments that embarked before January 3, 1978. Consequently, the trigger price mechanism did not become fully effective until May of that year.

With the recession of 1980, prices of imported steel fell by less than 1 percent, and the price of domestic steel declined by 5.5 percent. In the first quarter of 1980, U.S. Steel filed dumping complaints against five European producers. By basing the trigger prices on Japanese costs, the program gave the higher-cost European producers a license to dump. Since a purpose of the trigger price program was to eliminate the need for such proceedings, the U.S. government responded to U.S. Steel's complaints by suspending the trigger price program. A strengthened trigger price mechanism was resurrected later that year.

Nevertheless, the real price of imported steel continued to decline, producing another round of complaints from the steel industry in 1982. In addition to allegations of dumping, the steel companies maintained that foreign steel companies were being subsidized by their governments and that countervailing duties should be imposed. This charge led to the permanent suspension of the trigger price mechanism. The Commerce Department upheld the industry's claims of government subsidy in a number of these cases. In lieu of levying countervailing duties in those cases where a subsidy was found, the United States negotiated quotas with all European Community producers. 26/

Between 1977 and 1979, domestic production increased by 10 percent and imports declined by almost the same amount. Since then steel imports have commanded an increasing share of domestic supply. From a 15 percent share in 1979, their share grew to 22 percent in 1982, when the trigger price mechanism was abandoned, and to 26 percent in 1984.

The trigger price mechanism apparently had an even smaller impact on domestic output and prices than did the VRAs. One study estimates that the trigger price mechanism accounted for 25 percent of the increase in the price of imported steel in 1978 and 1979. 27/ The depreciation of the dollar would have led to a substantial increase in steel prices even without the program. Moreover, increasing costs of raw material and labor would have driven up the price of domestic steel. Consequently, the trigger price mechanism produced roughly a 1 percent increase in the price of domestic steel in 1979 and 1980. Despite the higher trigger prices that were put into place at the end of 1980, import prices declined in 1981. Given the rapid increase in the dollar, however, they may have decreased more rapidly without the restraints.

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26. See David G. Tarr, "Does Protection Really Protect?" p. 33.

27. See Robert Crandall, *The U.S. Steel Industry in Recurrent Crisis*, pp. 107-112.

If one assumes that the trigger price mechanism increased domestic prices by 1 percent in both 1978 and 1979, then before-tax profits would have increased by $315 million in 1978 and $360 million in 1979. These amounts represent about 15 percent of pretax industry profits in both years. The program probably did not have a larger effect on the level of profits in 1981.

## EFFECTS OF PROTECTION ON THE INDUSTRY'S COMPETITIVENESS

A goal of protection is to provide the domestic industry with the resources to improve its efficiency. The steel industry has been less profitable than the average of all manufacturing since 1960.[28] In addition, relative to stockholders' equity, its long term debt has been higher than average. In 1977 just before the trigger price mechanism was put in place, it was 60 percent greater than for all other manufacturing industries, and it has deteriorated significantly since then. The combination of relatively low profitability and high debt undoubtedly limits the ability of steel manufacturers to raise funds in capital markets.[29] While both episodes of protection probably increased profits, neither the voluntary restraint agreements nor the trigger price mechanism increased profits by much above what they had been. Moreover, neither instance of protectionism led to an increase in capital expenditures.

Although the VRAs may have ameliorated the deterioration in the industry's profits, they did not stem the decline in capital expenditures. Investment in plant and equipment by the intregrated producers fell during the first four years that the restraints were in effect; in 1972, real capital investments were 40 percent of the level they had been in 1968 (see Figure 10).[30] Prompted by record production and increased profits in 1973

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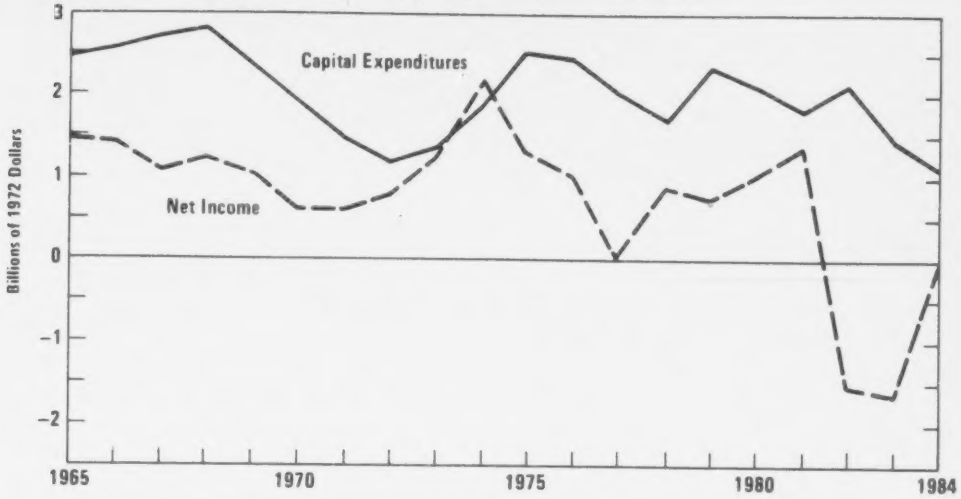
28. See Table 5. Also see Federal Trade Commission, Staff Study, *The United States Steel Industry and Its International Rivals: Trends and Factors Determining International Competitiveness*, November 1977, p. 68; and Congressional Budget Office, *The Effects of Import Quotas on the Steel Industry*, p. 31.

29. See Congressional Budget Office, *The Effects of Import Quotas on the Steel Industry*, p. 31.

30. The data on after-tax profits and investment comes from various issues of the *Annual Statistical Report*, published by the American Iron and Steel Institute. This data applies only to members of the Association and does not apply to the full universe of steel producers. The members, however, account for more than 80 percent of raw steel production.

Figure 10.
Profits and Investments of Integrated Steel Producers




SOURCE: Congressional Budget Office based on data supplied by the American Iron and Steel Institute.

NOTES: Adjusted by the GNP Deflator. Data include only members of American Iron and Steel Institute.

and 1974, real capital expeditures increased between 1973 and 1975. Nevertheless, investment remained substantially below what it had been in the four years before the restraints were imposed.

Similarly, the trigger price mechanism did not lead to increased investment. Between 1977 and 1980, during the first phase of the program, industry investment remained roughly constant. Capital expenditures declined by 20 percent in 1978 and then rebounded sharply in 1979. The average for these two years was around $2 billion, which was the level of capital expenditures that had prevailed in 1977 and 1980. Thereafter, capital expenditures trended downward. 31/

Between 1968 and 1982, productivity in the industry grew less than 50 percent as rapidly as it had in all other areas of manufacturing--an average annual rate of 1.1 percent for steel versus 2.4 percent for all manufacturing. The relatively poor performance of the steel industry was exacerbated by

31. Preliminary econometric investigations indicate that neither episode of protection had a significant effect on the level of investment.

the sharp decline in production in the early 1980s. 32/ Nevertheless, between 1968 and 1979, the steel industry's growth in productivity was 63 percent of all manufacturing. In the early 1980s, however, with its use of capacity below 50 percent, the industry began closing its least efficient facilities. As a result, output per man-hour increased at an average annual rate of 20.5 percent.

Protection did not achieve its long-term goal of producing a substantial modernization of the industry. Moreover, in all but two or three years, the two episodes of protection had minimal effects on domestic output and domestic employment. Employment in the industry has declined continually since the first episode of protection was introduced in 1968, and by 1984, it was nearly half of what it had been.

Although protection did not lead to substantial gains in employment or modernization of the industry, there is some evidence that it increased compensation for steel workers. During the 1970s, largely because of the no-strike labor agreement, average hourly compensation of steel workers grew significantly more rapidly than the average for all manufacturing. Since 1982, with demand for steel still relatively low, steelworkers have agreed to a significant reduction in wages. If the VRAs and the trigger price mechanism had a positive impact on profits, they may very well have contributed to preserving the relatively high-wage structure that the no-strike agreement of 1973 helped to perpetuate. 33/

## CONCLUSION

Clearly, neither the voluntary restraint agreements nor the trigger price mechanism provided the domestic steel industry with the resources to increase its international competitiveness. But even if protection had been more successful, it is doubtful whether a massive modernization program would provide adequate returns. Bethlehem Steel, for example, undertook a substantial modernization program in the early 1980s that has not proved profitable. 34/ In the first place, the costs of labor and raw materials are

32. Productivity numbers are from the Bureau of Labor Statistics.

33. For a discussion of the labor relations in a declining industry, see Colin Lawrence and Robert Z. Lawrence, "Manufacturing Wage Dispersion: An End Game Interpretation," *Brookings Papers on Economic Activity*, No. 1, 1985, pp. 47-106.

34. See "Critics Fault Trantlein for Failure to Revive an Ailing Bethlehem," *Wall Street Journal*, May 27, 1986, p. 1.

substantially higher in the United States than they are in many foreign countries. In addition, the negative growth in domestic consumption of steel over the last decade has significantly deterred the construction of new facilities. Moreover, trade protection may have contributed to the relatively high wages in the industry.

Although minimills are able to compete in the market for only a subset of the industry's products, they have become an increasingly important factor in the industry. They have been able to compete effectively with both integrated domestic and foreign producers. Increases in the share of imports for products that minimills produce have been significantly smaller than in other segments of the industry. 35/ To the extent that minimills can develop technologies to produce a wider array of steel products, they can be expected to continue to increase their role in the industry.

35. See Congressional Budget Office, *The Effects of Import Quotas on the Steel Industry*, pp. 15-16.

# CHAPTER IV

# FOOTWEAR

In several respects, the shoe industry is similar to the apparel industry. 1/ For both, the labor-intensive operations of cutting and stitching account for a substantial part of unit costs, and economies of scale are not very great. Output per worker and wages also tend to be low. Firms in both industries produce a broad array of sizes as well as styles, which change frequently as tastes change.

Protection in the footwear industry, however, has a substantially shorter history; there was only one four-year episode of restraints. Restrictions on the quantity of imports from Taiwan and Korea were imposed in 1977 and allowed to lapse in 1981. These two countries accounted for slightly more than half the shoe imports at the time the restraints were imposed. Moreover, the tariff on shoes, which was 11.7 percent in 1983, is substantially lower than on clothing. In 1984, imports accounted for 70 percent of the pairs of shoes supplied domestically.

The one episode of protection that did take place had only a limited impact on the output and profits of domestic footwear manufacturers. Two factors that undermined the restraints during this period were the growth of exports from noncontrolled sources and changes in the design of some products to avoid the quotas. Despite these limitations, the quotas apparently held imports below the levels they would otherwise have achieved, and generally had a positive effect on output, prices, and profits. One could even argue that investment increased as a result of the quotas. Nevertheless, the quotas ultimately failed to produce a domestic industry strong enough to compete successfully with imports. With the restraints removed, imports grew at twice the rate they had before quotas were imposed.

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1. In this chapter, the term "shoe" will be used synonymously with the designation "nonrubber footwear." It includes dress, athletic, and work shoes, boots, sandals, clogs, and other casual shoes. Footwear not covered by this designation includes protective footwear, such as rubbers and galoshes; zoris (thonged sandals); certain footwear with uppers of fabric and soles of rubber or plastics, such as sneakers, certain joggers, and other casuals; and several other minor categories. See International Trade Commission, *Nonrubber Footwear: Report to the President on Investigation No. TA-203-7*, Publication 1139 (Washington, D.C.: ITC, April 1981), p. A-2.

## CHARACTERISTICS OF THE INDUSTRY AND ITS COMPETITIVE POSITION

Shoe production is labor intensive, and although wages in the industry are significantly below the U.S. manufacturing average, they are nevertheless 75 percent to 80 percent higher than wages in most major shoe exporting countries.[2] Consequently, U.S. footwear manufacturers operate at a significant cost disadvantage vis-a-vis their chief competitors.[3] Moreover, these cost differentials have remained constant or widened over the past 10 years, in part because of the strengthening of the U.S. dollar and in part because of technical progress in the shoe industries of other countries.

Shoes are a highly heterogenous product: they are not only differentiated by user (women versus men) but by use (athletic, casual, and dress shoes) and style. Within this spectrum, foreign producers have traditionally concentrated on low quality and less complicated products, although Italian and, increasingly, Brazilian shoes are something of an exception.

By almost any indicator, the competitive position of the shoe industry had been steadily deteriorating before protection was imposed. In 1960, domestic firms produced 600 million pairs of shoes, and imports accounted for less than 5 percent of domestic supply. While domestic production remained at roughly that level through most of the 1960s, imports increased nearly sevenfold and accounted for more than 25 percent of domestic supply in 1968. In the late 1960s, as imports continued to grow, domestic production began to contract (see Figure 11). Imports increased by 195 million pairs of shoes between 1968 and 1976, while domestic production fell by roughly an equivalent amount to 422 million pairs of shoes. Employment of

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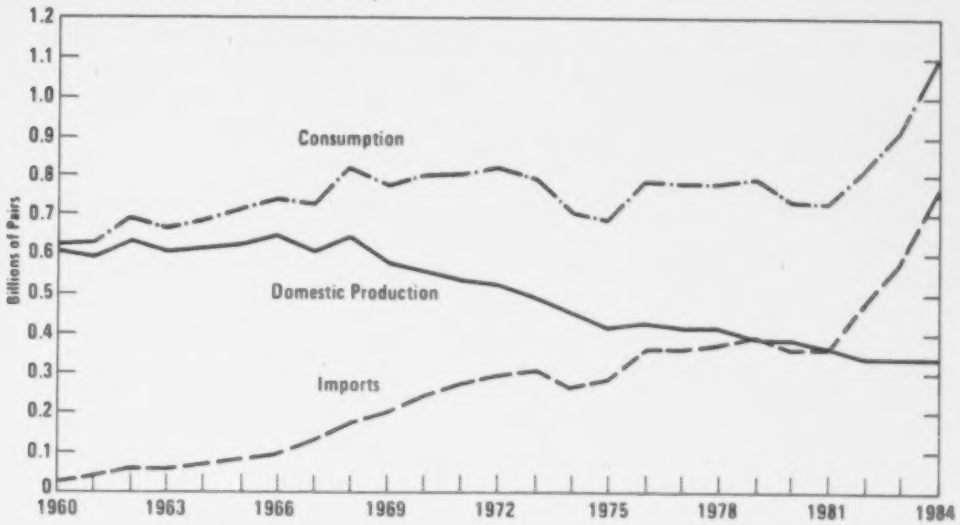
2. Capital stock per hour worked may be used as a crude measure of the capital/labor ratio, since it approximates the amount of machinery with which each worker is equipped. By this ranking, leather and leather products (which is dominated by shoe production) is the third most labor-intensive SIC industry after apparel and construction. See *Statistical Abstract of the United States, 1985* (Washington, D.C.: Bureau of the Census, 1984), p. 526.

3. See Prehearing Brief of Footwear Industries of America, Inc., U.S. International Trade Commission, Investigation Number TA-201-55 (1985), pp. 55-56, and Posthearing Brief of the Korean Footwear Exporters Association, U.S. International Trade Commission, Investigation Number TA-201-55 (1985), pp. 16-17.

Figure 11.
Domestic Footwear Consumption




SOURCE: Congressional Budget Office based on data supplied by Department of Commerce.

production workers declined by roughly 60,000 (23 percent) between the mid-1960s and 1976, the year before the quotas went into effect. 4/

In 1975, the American Footwear Industries Association and two trade unions petitioned the International Trade Commission for trade relief under the "escape clause." The ITC found that increased imports were a substantial cause of serious injury to the domestic industry and recommended that trade restraints be imposed. Instead, President Ford ordered that requests for trade adjustment assistance be expedited. In 1976, the Senate Finance Committee petitioned the ITC to reexamine the industry's request for protection, and the Commission again recommended that the industry be given relief. Instead of imposing tariff rate quotas, as the ITC suggested, President Carter directed that Orderly Marketing Agreements (OMAs) be

4. See International Trade Commission, *Footwear: Report to the President on Investigation No. TA-201-13*, Publication 799 (Washington, D.C.: ITC, February 1977).

negotiated with Taiwan and Korea.[5] Exports from both countries had grown very rapidly, and they had become the two largest exporters of footwear to the United States. In 1976, Taiwan accounted for 42 percent of the quantity of imported footwear, and Korea accounted for 12 percent.

The agreements, which took effect in July 1977, lasted for four years. In the first year of the agreements, imports were restricted to 122 million pairs from Taiwan and 33 million pairs from Korea, which represented 78 percent and 75 percent, respectively, of these countries' exports to the United States in 1976. The quotas for Taiwan were divided into three separate categories (leather footwear, plastic footwear, and footwear with fiber uppers). The agreement with Korea contained two separate categories (leather footwear and leather athletic footwear). The agreements gave the exporting countries some flexibility to shift quotas among categories and to borrow from quotas in future periods. In addition, the quotas increased by roughly 3 percent per year.

In making its recommendation to the President, the ITC suggested that protection might be expected to allow the industry "to meet import competition," and to "improve its competitive condition."[6] Subsequent ITC reports on the shoe industry also implied that modernization was one of the objectives of trade protection. For example, in recommending that protection be extended beyond the initial four-year term, several ITC Commissioners noted the strides that the industry had made to improve its competitive performance.[7]

## IMPACT OF QUOTAS ON IMPORTS

The imposition of quotas substantially reduced the quantity of imports from the constrained countries, as well as dramatically increasing their average

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5. A tariff rate quota imposes the added tariff for imports above a threshold amount. For an analysis of the decision to employ OMAs, see David Yoffie, "Adjustment in the Footwear Industry: The Consequences of Orderly Marketing Agreements," in John Zysman and Laura Tyson, *American Industry in International Competition* (Ithaca: Cornell University Press, 1983).

6. See "View of Chairman Daniel Minchew and Others," in International Trade Commission, *Footwear: Report to the President on Investigation No. TA-201-18*, Publication 799 (Washington, D.C.: ITC, February 1977), p. 16. Also see "Views of Commissioner Eckes on Remedy," p. 150, in the same report.

7. See statement of Chairman Bill Alberger and others, International Trade Commission, *Nonrubber Footwear: Report to the President on Investigation No. TA-203-7*, Publication 1139, p. 9.

price. Other countries stepped up shipments to the United States, however, which mitigated the effect of the restraints on the quantity and price of nonrubber footwear imports taken as a whole. Nevertheless, the quotas were almost certainly successful in reducing imports below the levels they would otherwise have been.

## Quantity of Imports

During 1978, the first full year of the quotas, Taiwan's total nonrubber footwear exports to the United States dropped by nearly 30 percent as compared with the year before, and Korea's exports fell by more than 45 percent. Quotas were 100 percent filled in all categories, and Korea used the flexibility provisions in its OMA to achieve exports in excess of the quota limit. 8/ Taiwan continued to fill its quota limits in all categories throughout the life of the OMAs. Imports of athletic shoes from Korea, which represented 75 percent of that country's shipments in the first year of the quotas, were also at or near the quota limits for most of the period. After the first year, however, Korea's exports of leather footwear were substantially less than their quota. 9/

Although the quotas limited imports from Taiwan and Korea, imports from unconstrained countries grew by more than 50 percent in 1978 and more than made up for the decline in imports from the restrained countries. Thus, despite the restraints, footwear imports from all sources were 1 percent higher than they had been in 1977. Imports remained relatively constant in subsequent years of the quota, with Taiwan and Korea exporting fewer shoes to the United States than they had in 1977 and other countries exporting more (see Figure 12). 10/ Nevertheless, certain types of shoes were apparently in relatively short supply because of the restraints. U.S. importers complained of difficulty in obtaining low-price leather and plastic

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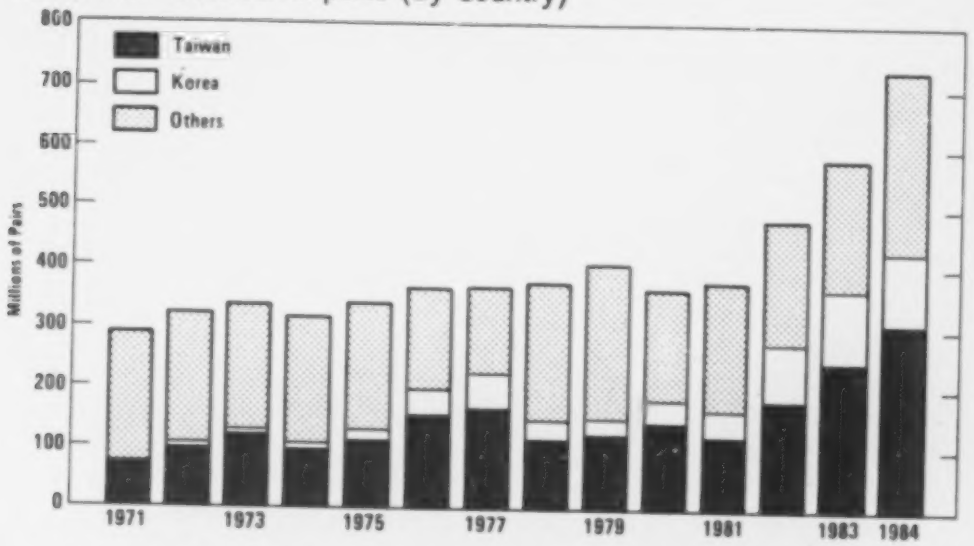
8. See International Trade Commission, *Nonrubber Footwear: Report to the President on Investigation No. TA-203-7*, Publication 1139, p. G-2.

9. According to the Korean Footwear Association, increased raw materials and labor costs made it uneconomic for the country to produce as much leather footwear as formerly. See "Additional Statement of Chairman Alberger and Vice Chairman Calhoun," in International Trade Commission, *Nonrubber Footwear: Report to the President on Investigation Number TA-203-7*, Publication 1139, p. 16.

10. There was a surge in imports from Italy in 1978 and especially 1979. This increase resulted entirely from a trend toward women's high-heeled "Candy" shoes. The popularity of these shoes was responsible for the transitory increase in imports from unrestrained countries in 1979.

Figure 12.
Nonrubber Footwear Imports (By Country)




SOURCE: Congressional Budget Office based on data supplied by Department of Commerce.

shoes from Taiwan and Korea, and potential substitutes (especially from Thailand and Indonesia) were of either too low a quality or could not be manufactured inexpensively enough. 11/

The growth of imports from unconstrained sources was not the only factor that limited the quotas' effectiveness; Taiwan and Korea each managed to skirt the restraints to some degree. Taiwan shipped shoes through Hong Kong in order to bypass OMA limitations. Eventually, a certificate of origin was imposed on all shoe exports from Hong Kong. After jumping by more than 200 percent between 1977 and 1978, Hong Kong's shoe exports to the United States subsequently declined steadily, albeit slowly thereafter.

Moreover, Korean manufacturers were able to mitigate the impact of the quotas by redesigning some of their shoes. Shoes are considered "nonrubber footwear" if over 50 percent (by value) of their upper surface is leather. Because much of the leather used in jogging and other athletic

11. International Trade Commission, *Nonrubber Footwear: Report to the President on Investigation No. TA-203-7*, Publication 1139, p. A-11.

shoes is ornamental rather than functional, Korean manufacturers were able to alter some athletic shoes so they would not be classified as leather and therefore not be covered by the OMA restrictions. 12/ As a result, Korean exports of rubber and fabric footwear to the United States increased substantially while the restraints were in effect and exceeded exports of nonrubber footwear between 1978 and 1981. When the restraints expired, Korean exports of rubber and fabric footwear fell by more than 20 percent.

Despite the growth from unconstrained sources, imports of nonrubber footwear grew much less rapidly while the quotas were in effect than before or after they were instituted. In 1981, the year the quotas expired, shoe imports were 2.6 percent higher than they had been in 1976; in the five years before quotas began, imports had grown by more than 25 percent. Shoe imports, however, more than doubled in the four years after the quotas expired. 13/ By 1984, imports had achieved a substantial share of the domestic market in all the major segments of the industry. They accounted for 64.4 percent of the domestic consumption of men's shoes, 64.5 percent of children's shoes, 78.9 percent of women's shoes, and 91.5 percent of athletic shoes (or when measured in value, 31.8 percent, 37.4 percent, 49.7 percent, and 77.2 percent, respectively). 14/

Prices of Imports. Although imports from unrestricted countries compensated for the reduced supplies from Korea and Taiwan, the quotas reduced the quantity of imported footwear in certain categories, and hence the prices of imported shoes increased.

The average unit price of imports from all sources, adjusted for changes in the GNP deflator, increased by 22 percent between 1976 and 1978, the first full year of the restraints. The fall in the value of the dollar during that period undoubtedly contributed to the increase in import prices. As the U.S. economy entered a recession in 1980 and the dollar began its rapid appreciation the following year, average prices declined. Nevertheless, in 1981 the real average price of imported shoes was

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12. International Trade Commission, *Nonrubber Footwear: Report to the President on Investigation No. TA-203-7*, Publication 1139, p. A-9.

13. Toward the end of the quota period, the U.S. economy experienced back-to-back recessions. This slump undoubtedly slowed the growth of imports, just as the subsequent recovery contributed to the import spurt that followed the expiration of the quotas.

14. See International Trade Commission, *Nonrubber Footwear: Report to the President on Investigation TA-201-55*, Publication 1717 (Washington, D.C.: ITC, July 1985), p. A-24.

9 percent higher than it had been in 1976. The average real price of footwear from Taiwan, however, increased by 90 percent between 1976 and 1981, and the average price of Korean shoes increased by 25 percent. Between 1981 and 1984, prices of imported footwear declined by 15 percent as the quantity of imports increased rapidly after the quotas lapsed and the value of the dollar strengthened. 15/

The increased prices of Taiwanese and Korean footwear reflected more than a reduction in supply; restrictions on quantity provide importers with incentives to shift their product mix toward higher-priced products. In 1976, the average price of shoes from Taiwan was a third of the average price from other foreign sources. While the quotas were in effect, this percentage increased, reaching 70 percent in 1981. After the quotas lapsed, the ratio of the average price of Taiwanese shoes to the prices of other imports fell below 60 percent. 16/

## IMPACT OF QUOTAS ON THE DOMESTIC INDUSTRY

If the goals of protection are to preserve domestic employment in the short run, while giving an industry the time and the resources to compete more effectively, they were not achieved in the footwear industry. Although quotas curtailed the growth of shoe imports, domestic production of footwear continued to fall. Investment did increase somewhat in the final years of the quotas. It did little, however, to increase the industry's international competitiveness.

### Domestic Output

Domestic shoes are not perfect substitutes for imported ones; there are differences in quality and style. Consequently, a reduction in the quantity of imports cannot be expected to lead to a corresponding increase in domestic demand. Between 1976 and 1981, the year the quotas lapsed, domestic

15. The real unit values of Taiwanese shoes fell by 20 percent in 1982, and prices of Korean shoes fell by 16 percent. Prices of shoes from other sources, however, rose slightly.

16. As Taiwan reduced its shipments of low-priced shoes, manufacturers in other countries stepped in to fill the void. The decline in prices of imported shoes from countries other than Taiwan and Korea was probably the result of increased shipments of lower-quality shoes from these countries.

shoe production fell by 12 percent. 17/ Since imports remained relatively flat during this period, domestic shoe consumption declined while the quotas were in effect. Nevertheless, the decline in domestic production during the period of restraints was substantially slower than it had been before quotas were imposed. Between 1971 and 1976, it had fallen by more than 20 percent. There were recessions during both periods (1975 and 1980) that adversely affected demand for shoes.

The decline in production led to an 11 percent contraction in employment in the industry, with 18,000 fewer employees in 1981 than in 1976. Moreover, average hourly compensation in the footwear industry, which was 65 percent of the average of all manufacturing in 1976, had fallen to 61 percent by 1982.

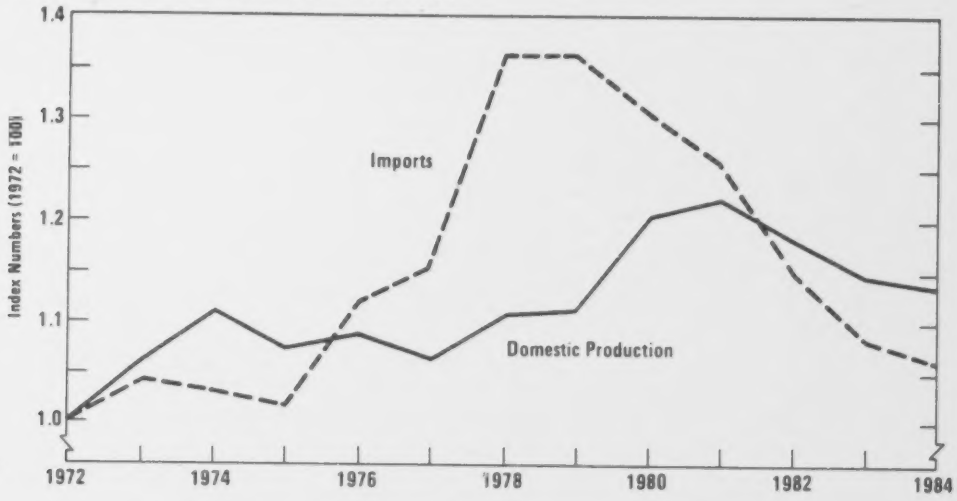
## Prices and Profits

Protection did apparently increase the price of domestically produced shoes and the profits of shoe manufacturers. The rise in the price of domestic shoes, however, was not nearly as great as it was for imports (see Figure 13). Between 1977 and 1979, the real unit values of domestically produced shoes increased by 2 percent. Although the average price of imports peaked in 1979, real domestic shoe prices increased by 10 percent between then and 1981. In part, this rise was the result of a 30 percent increase in the real price of leather, an important input into footwear. 18/ But the increase in average prices was also the result of the increasing emphasis of domestic manufacturers on higher-priced shoes. The producer price index for footwear, which holds the mix of shoes constant, rose

17. After remaining relatively constant in the first two years of the quotas, domestic production fell by nearly 5 percent in 1979, and by around 3.5 percent in each of the two subsequent years. The ITC estimated that, because of the quotas, domestic production was 7 percent higher in 1977 and 1978, and 4 percent higher in 1979, the last year included in its analysis. See International Trade Commission, *Economic Effects of Export Restraints*, Publication 1256 (Washington, D.C.: ITC, June 1982), p. 25.

18. The International Trade Commission used the producer price index to measure the price of footwear and estimated that the Orderly Marketing Agreements (OMAs) increased domestic prices by 0.5 percent in 1977, 1.1 percent in 1973, and 10 percent in 1979. Their estimate of the effect in 1979 is much larger than is suggested by this discussion. The producer price index registered a nominal increase of 19 percent in 1979 and 7 percent in 1980; average unit values reversed this pattern and showed a much larger increase in 1980. Moreover, in estimating the effect of the OMA, the ITC did not take into account the rapid increase in the price of leather. See International Trade Commission, *Economic Effects of Export Restraints*, p. 25 and Appendix D.

Figure 13.
Unit Values of Nonrubber Footwear




SOURCE: Congressional Budget Office based on data supplied by Department of Commerce.
NOTE: Adjusted by GNP Deflator.

10 percent less than the increase in the average unit value between 1976 and 1981. Nevertheless, it appears reasonable to conclude that the VRAs resulted in some increase in the prices of domestically produced shoes.

An increase in profitability for footwear manufacturers provides further support that the OMAs increased the prices of domestic shoes. 19/ The International Trade Commission data indicate that after remaining relatively stable between 1975 and 1979, before-tax profit margins increased subsequently and were 80 percent higher in 1981 (see Table 6).

It is doubtful that protection was entirely responsible for the large increase in profits. In the first place, the data were drawn from different samples, and the firms in the latest sample were apparently more profitable

19. The only available information on the profitability of shoe manufacturing comes from two ITC surveys that were done in conjunction with its "escape clause" investigations. The surveys do not include the same firms and are, therefore, not strictly comparable. In addition, the larger firms, which tend to be more profitable, are overrepresented in the sample. See International Trade Commission, *Footwear: Report to the President on Investigation No. TA-201-18*, Publication 799, pp. A-37 and A-42, and International Trade Commission, *Nonrubber Footwear: Report to the President on Investigation No. TA-201-55*, Publication 1717, p. A-54.

TABLE 6. OUTPUT EMPLOYMENT, PROFITS, AND INVESTMENT IN THE NONRUBBER FOOTWEAR INDUSTRY

| Year | Quantity of Shoes (In millions) | Employees (In thousands) | Before-Tax Profits as Percent of Sales | | Investment (In millions of 1977 dollars) a/ |
|---|---|---|---|---|---|
| | | | Footwear | All Manufacturing | |
| 1972 | 527 | 176 | n.a. | n.a. | 53.7 |
| 1973 | 498 | 170 | n.a. | n.a. | 60.1 |
| 1974 | 453 | 162 | n.a. | 8.7 | 56.2 |
| 1975 | 413 | 146 | n.a. | 7.5 | 39.9 |
| 1976 | 428 | 149 | n.a. | 8.7 | 36.8 |
| 1977 | 418 | 145 | 5.3 | 8.7 | 37.1 |
| 1978 | 419 | 144 | 5.3 | 8.9 | 37.9 |
| 1979 | 399 | 138 | 5.2 | 8.9 | 51.4 |
| 1980 | 386 | 135 | 8.4 | 8.3 | 52.2 |
| 1981 | 392 | 133 | 9.5 | 7.4 | 74.5 |
| 1982 | 342 | 122 | 7.3 | 5.3 | 44.1 |
| 1983 | 341 | 115 | 8.2 | 6.3 | 33.7 |
| 1984 | 344 | 102 | 5.3 | 7.1 | n.a. |

SOURCE: Department of Commerce; International Trade Commission.

NOTES: Profit margins were derived by the International Trade Commission from three different surveys; the surveys did not include the same firms. The first survey covered 1975, the second survey covered 1977 through 1980, and the third survey covered 1980 through 1984. The profit margin reported for 1980 is from the latter survey; it was 7.8 percent in the earlier survey.

n.a. = not available.

a. Deflated by the GNP deflator.

than those in the earlier ones. (Two of the surveys include 1980, and the margin in the later sample was 0.6 percentage points higher.) Second, although profits declined once the quotas were lifted, they remained above the levels they had been before 1980. Apparently, domestic producers were abandoning production of lower priced shoes, which were the least profitable segment of the industry. To derive an estimate of the effect of protection on profits, assume that without protection, shoe manufacturers would have earned in 1980 and 1981 what they had earned in the two subsequent years and adjust for the higher profitability in the latter sample. In that case, the quotas increased profit margins by 0.6 percentage points in 1980 and 1.6 percentage points in 1981. In addition, if one assumes that these profit margins are representative of all the firms, then industry profits would have increased by $30 million and $80 million in the two years.

During the period in which the quotas were in effect, shoe manufacturers increased their investments in plant and equipment. In 1981, the real value of investments by shoe manufacturers was approximately double what it had been in 1976. Nevertheless, 1981 was the only year in which investment in plant and equipment by firms exceeded the levels of capital expenditure of years as recent as 1973 and 1974. The estimated increase in before-tax profits was 45 percent and 77 percent of investment in the two years. Investments in plant and equipment declined significantly in 1982 after the quotas lapsed, which was also a recessionary year. According to the ITC's surveys, the footwear industry's debt-to-stockholder's equity has been well above the average for all manufacturing. 20/ Thus, the increased investment may have been, at least in part, attributable to the restraints.

Although trade protection may have increased investment in plant and equipment, it did not enable the industry to improve its international competitive standing substantially. Despite its adoption of computer-aided design, grading and stitching systems, laser powered cutting tools, and unit bottom molding equipment, the industry's productivity has not improved appreciably. Between 1977 and 1981, when the quotas were in effect, output per employee hour in the shoe industry declined at an annual rate of 1.2 percent; in all sectors of manufacturing, productivity had increased at

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20. See International Trade Commission, *Nonrubber Footwear: Report to the President on Investigation Number TA-201-50*, Publication 1545 (Washington, D.C.: ITC, July 1984), pp. A-138 to A-143. See also International Trade Commission, *Nonrubber Footwear: Report to the President on Investigation, Number TA-201-55*, Publication 1717, pp. A-150 to A-155.

an average rate of 1.1 percent. Between 1981 and 1984, productivity in the shoe industry grew at one-half the 3.4 percent rate that it rose in all manufacturing. 21/

## CONCLUSION

While increased imports from unconstrained sources undermined the effectiveness of the restraints, little doubt exists that imports were lower than they otherwise would have been, and output as well as profits were somewhat higher. There is also some evidence that investment increased. After trade protection lapsed, the quantity of imports expanded rapidly, domestic output declined, and industry profits moved downward. In fact, recent requests by the footwear industry for another round of trade protection indicate that the first round of trade protection did not substantially improve the industry's competitive position. Although the ITC recommended additional protection in 1985, President Reagan did not grant it.

21. This rate is based on data from the Bureau of Labor Statistics, Department of Labor. Between 1972 and 1977, productivity in the shoe industry had increased at an annual rate of 0.5 percent as compared with a 2.4 percent increase for all manufacturing. The productivity measure does not adjust for changes in the output mix.

CHAPTER V

# AUTOMOBILES

In the early 1960s, the automotive industry successfully fought off the initial wave of European imports. Since then, the imported share of domestic car sales has steadily increased, and in the mid-1970s Japan replaced Europe as the main source of imports. In 1981, with the economy weak and the price of oil high, Japan agreed to limit its exports of cars to the United States for a year. The voluntary restraint agreement (VRA) was extended for three more years and lapsed in the spring of 1985. Japan, however, has unilaterally restricted its exports to the United States for another two years.

The restraints on the imports of Japanese cars provided significant aid to the domestic industry. In 1983, the economic recovery buoyed new car demand, and the VRAs limited increases in sales of Japanese cars. Moreover, manufacturers from other countries were not able to fill the void created by the restraints. As a result, the trade restraints increased prices and output for domestic cars, along with industry profits. Furthermore, industry investment rose in 1984 and 1985. Nevertheless, the trade restraints do not appear to have had much effect on the domestic industry's international competitiveness.

## THE GROWTH OF IMPORTS

In the first part of the twentieth century, the domestic autombile industry had established the basic production and marketing principles that prevailed well into the 1960s. Automobile manufacturers minimized production costs by limiting the number of basic body styles they offered. The demand for diversity was satisfied by frequent but largely cosmetic model changes along with differing levels of opulence offered by the various models. This arrangement proved very profitable for the industry in general and most notably for General Motors, the industry's leader. Moreover, given the large scale of operation necessary to be an efficient automobile producer, there were no potential competitors on the horizon.

This pattern changed when European imports, led by the Volkswagen Beetle, grew rapidly in the late 1950s. Because of higher fuel prices and

lower per capita incomes in Europe, these cars were designed to be lower priced and less expensive to operate than domestic vehicles. Such attributes made imported cars attractive to certain segments of the U.S. automobile market, and by 1959 European imports had captured more than 10 percent of domestic sales (see Figure 14).

The domestic manufacturers first response to the increased European competition was to import cars from their European subsidiaries. 1/ The three major domestic automobile manufacturers, however, ultimately decided to introduce cars that were smaller and lower priced than their standard products. The Corvair, Falcon, and Valiant were quite successful. Between 1959, when the compacts were introduced, and 1962, sales of imported cars declined by 45 percent, and their market share slipped to less than 5 percent.

Although the compacts reduced the imported share of the domestic market, they were not very profitable. It has traditionally been true that the larger the car, the higher its price and the more profitable it is to manufacture. 2/ This is partly because smaller domestic cars compete most directly with imports. The Europeans, at least until the late 1960s, and subsequently the Japanese, have been able to produce these cars at a lower cost than domestic manufacturers.

Consequently, in 1962 the automobile manufacturers increased the size of their compacts. Although doing so may have increased profits, the redesigned small cars were less successful against the imports. Between 1962 and 1968, sales of imports grew at an average annual rate of 20 percent, and their market share again surpassed 10 percent. It reached 15 percent by 1970 as sales of imports continued to increase, despite a decline in overall new car sales. Europe, and most notably Germany, continued to account for the bulk of the imports. Even though Japan's auto exports to the United States grew very rapidly, they accounted for less than 4 percent of domestic new car sales in 1970.

For 1971, U.S. manufacturers again introduced new models to halt the growth of imported cars and to meet the growing demand for small cars.

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1. See Lawrence White, *The Automobile Industry Since 1945* (Cambridge: Harvard University Press, 1971), pp. 177-188.

2. See National Academy of Sciences, *The Competitive Status of the Automobile Industry* (Washington, D.C.: NAS, 1984), p. 69. Also see, John E. Kwoka, Jr., "Market Segmentation by Product Quality: Some Evidence from Automobiles," George Washington University, Department of Economics Discussion Paper, 1985.

Figure 14.
Automobile Retail Sales (Domestic and Imports)

SOURCE: Congressional Budget Office based on data supplied by the Motor Vehicle Manufacturers Association.

But GM's Vega and Ford's Pinto were not nearly as successful at stemming the growth of imports as their predecessors had been. Although the climb in the market share of imports was essentially arrested for two years, the quantity of imports continued to increase.

## The First Oil Shock

Demand for fuel-efficient cars was given a boost by the Arab oil embargo and the emergence of OPEC in 1973. Because of domestic oil price controls, long lines at gasoline stations helped to ration gasoline supplies. The real price of gasoline, however, ultimately increased by nearly 25 percent between 1972 and 1975, reversing a 10-year decline.

The higher gasoline prices reduced demand for automobiles, and it was further depressed by the recession that began in the latter half of 1974. Consequently, between 1973 and 1975 new car sales fell by 25 percent; sales of the larger domestic cars fell by almost 50 percent as compared with a less than 10 percent decline in the sales of smaller domestic cars. 3/ Sales

3. This amount includes vehicles that are classified as compact or subcompact. Other size classifications include intermediate, full-size, and luxury. This report uses the classifications developed in *Ward's Automotive Yearbook* (Detroit: Ward's Communication, Inc., various years).

of imports, which were predominantly small cars, also fell by less than 10 percent, and their share of the market increased from 15 percent in 1973 to 18 percent in 1975. Japanese imports increased by 9 percent during this period, however, and Japan replaced Europe as the major supplier of foreign cars to the United States.

## The Industry's Response to Government Regulations

Increased demand for smaller cars forced the domestic auto industry to accelerate its development of more fuel-efficient cars. In 1975, the Congress reinforced this demand when it passed the Energy Policy and Conservation Act. The act continued government price controls on oil and oil products. But because limiting gasoline prices reduced the incentives of manufacturers to produce fuel efficient cars, the act imposed Corporate Average Fuel Economy (CAFE) standards on automobile manufacturers. These standards required a 75 percent improvement in the miles per gallon for the average vehicle sold in the United States. 4/ Since the standards were the same for all manufacturers--that is, an average fuel economy of 27.5 miles per gallon by 1985--some firms had to achieve a substantially greater improvement than others. 5/ The CAFE standards did not apply to individual models. Beginning in 1980, however, the act imposed a "gas guzzler" tax for model lines with particularly low fuel economy. In the 1986 model year, this tax ranged from $500 per car sold for models that achieved a 21.5 to 22.5 miles per gallon to $3,850 for models that achieved less than 12.5 miles per gallon. 6/

Market developments alone would have encouraged automakers to produce more fuel-efficient cars. In fact, a recent study concludes that the standards did not influence the fuel economy of the Big Three's domestic cars through the 1981 model year. According to this study, however, between 1982 and 1984, the standards may have encouraged domestic producers to increase the price differences between large and small cars in order to increase sales of the more fuel-efficient vehicles. 7/ Nevertheless,

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4. See Robert Crandall and others, *Regulating the Automobile* (Washington, D.C.: The Brookings Institution, 1986), pp. 122, 126.

5. The Department of Transportation relaxed the standard to 26 miles per gallon for the 1986 model year.

6. 26 USC 4064.

7. Crandall and others, *Regulating the Automobile*, pp. 132-138.

achieving such a large improvement in fuel economy was a substantial undertaking. Manufacturers had to reduce the size and weight of the vehicles, as well as to incorporate new technologies and materials. It takes from three to five years to design and build a new automobile model, and to redesign all of a company's model lines can take as long as ten years.

For the industry, the complex task of redesigning its fleet was complicated by a host of safety and environmental regulations that the government had imposed. In 1966, the National Highway and Motor Vehicle Safety Act established the National Highway Traffic Safety Administration with broad powers to promulgate regulations relating to the safety of automobiles. Regulations adopted by NHTSA affected things as diverse as seat belts, steering wheels, and bumpers. In 1970, the Clean Air Act required that by 1976 auto manufacturers had to reduce emmissions of hydrocarbons, carbon monoxide, and nitrogen oxides up to 95 percent of the levels of 1968 automobiles. The hydrocarbon and carbon monoxide standards were delayed until 1980 and 1981, respectively. A nitrogen oxide standard that was less stringent than the one that was originally proposed took effect in 1981.

Regardless of their merits, these regulations inserted the government squarely into the automobile companies' planning and production decisions. In the first place, the safety and emmission regulations directly increased the cost of manufacturing cars (see Table 7). Morever, they frequently conflicted with the need of car manufacturers to increase fuel economy. The safety standards generally required the automakers to add equipment to the vehicles, which increased their weight and lowered their fuel economy. For example, the heavier assembly needed to comply with the regulation that bumpers withstand a 5 mile per hour collision resulted in a 2 percent reduction in fuel economy.[8] Moreover, this standard took effect in the 1973 model year, just before the Arab oil embargo.

For the most part, the safety regulations could be met with existing technologies. This was not the case with the emission standards. Thus, at the same time that the automobile manufacturers had to develop the means to improve fuel economy, they had to develop technologies to reduce emissions. As with the safety standards, meeting the emission standards frequently required a sacrifice in fuel economy. One study estimates that the more stringent 1981 emission standards reduced fuel economy by 7 percent.

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8. See Crandall and others, *Regulating the Automobile*, p. 143. The standard was relaxed in 1982.

TABLE 7. THE ANNUAL EFFECTS OF FEDERAL REGULATIONS ON THE AVERAGE RETAIL PRICE OF DOMESTIC CARS
(In 1980 dollars)

| Year | Safety | Emission | Total |
|---|---|---|---|
| 1968 | 70.23 | 26.53 | 96.75 |
| 1969 | 31.47 | 0.00 | 31.47 |
| 1970 | 56.24 | 11.67 | 67.91 |
| 1971 | 0.00 | 0.00 | 0.00 |
| 1972 | 3.94 | 13.79 | 17.73 |
| 1973 | 158.72 | 51.36 | 210.09 |
| 1974 | 179.79 | 2.34 | 182.13 |
| 1975 | -55.27 | 182.50 | 127.23 |
| 1976 | 19.40 | 11.00 | 30.40 |
| 1977 | 9.45 | 19.44 | 28.90 |
| 1978 | 0.00 | 12.50 | 12.50 |
| 1979 | 6.53 | 13.74 | 20.26 |
| 1980 | 13.29 | 118.04 | 131.33 |
| 1981 | 3.89 | 422.79 | 426.68 |
| 1982 | 0.00 | 72.29 | 72.29 |
| 1983 | 0.00 | 53.72 | 53.72 |
| 1984 | -9.59 | 46.72 | 37.13 |
| 1985 | 0.00 | 15.37 | 15.37 |

SOURCE: Congressional Budget Office; Bureau of Labor Statistics, Department of Labor.

NOTE: The negative effects in 1975 and 1984 reflect discontinuation of seat belt-ignition interlock system and relaxation of the bumper standard, respectively.

Moreover, these standards took effect in the year that real gasoline prices peaked. 9/

## A Temporary Recovery

Beginning in 1975, the auto industry was helped by a number of developments. New car models and the redesign of existing ones were in large part responsible for a 40 percent increase in the average fuel economy of new cars sold domestically between 1973 and 1978. 10/ The real price of gasoline declined after 1975, and the economy emerged from the recession. As a result, car sales grew at an average annual rate of 9 percent between 1975 and 1978; sales of the more fuel-efficient larger cars grew at an average annual rate of more than 13 percent (see Figure 15). The recovery of the large-car segment of the market, however, did nothing to curtail the growth of imports. Their share of the market remained at roughly 18 percent. By the late 1970s, Japan accounted for nearly 70 percent of car imports.

Higher sales, coupled with a shift in the product mix toward larger cars, led to a substantial recovery in the automobile manufacturers' profits from their 1974 and 1975 lows. But when measured as a percentage of sales or as a percentage of stockholders' equity, the industry's profitability did not reach the levels of the mid-1960s. Foreshadowing future events, Chrysler actually recorded a loss in 1978, after posting the slimmest of profits the year before.

## The Second Oil Price Shock

In the late 1970s, another escalation of world oil prices took place. The real price of gasoline increased by 50 percent between 1978 and 1980, and in 1980 the domestic economy experienced a recession that was quickly followed by yet another one in 1981 and 1982. The rapid increase in gasoline prices led to a replay of the mid-1970s; the demand for automobiles declined and shifted toward smaller cars. Fuel prices increased by a larger amount than in the previous episode, and the economic downturn that followed was of longer duration. Consequently, the adverse effects on the automobile producers were more severe. Between 1978 and 1981, domestic

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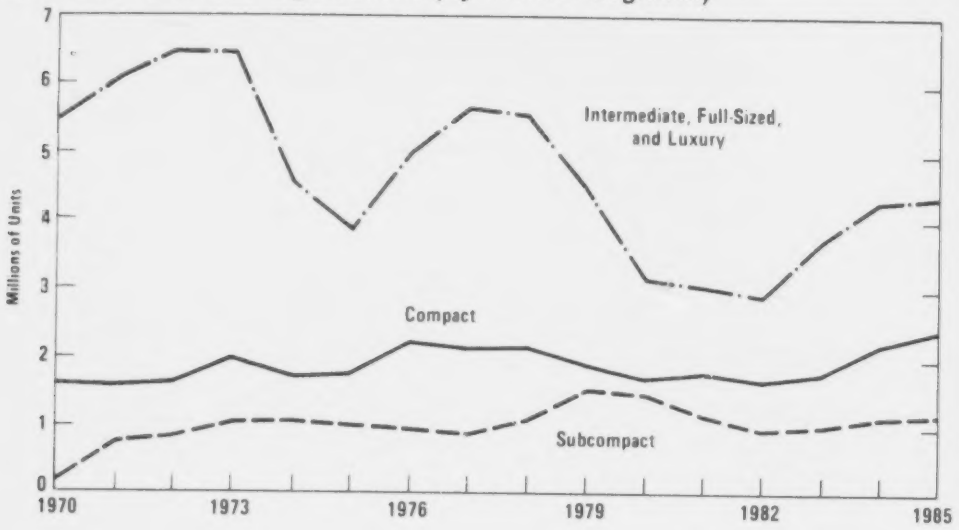
9. Lawrence J. White, *The Regulation of Air Pollutant Emissions from Motor Vehicles* (Washington, D.C.: American Enterprise Institute, 1982), pp. 63-64.

10. Crandall and others, *Regulating the Automobile*, p. 122.

Figure 15.
Domestic New Car Registrations (By Market Segment)




SOURCE: Congressional Budget Office based on data in Ward's Automotive Yearbook (Detroit: Ward's Communication Inc.), various issues.

sales of new cars declined by nearly 30 percent, and sales of large cars fell by over 40 percent. In the meanwhile, the shift in demand toward smaller cars increased imports by 15 percent. Sales of Japanese imports increased by 40 percent, while sales of European imports fell almost as rapidly as domestic automobiles.

Sales of domestic small cars did not fare as well during the second oil price shock as they had in the first. An important reason for this divergence was the increasing perception among new car buyers that foreign cars, and especially Japanese cars, were of higher quality. Using the frequency of repair statistics from *Consumer Reports*, one study showed that between 1970 and 1982 the ratings of domestic manufacturers declined vis-a-vis Japanese cars. 11/ Other surveys of consumer sentiment came to similar conclusions. In a 1982 ranking of how satisfied purchasers were with their new cars, J.D. Powers found that Japanese manufacturers had six of the top ten places while domestic manufacturers had none. 12/

11. See Crandall and others, *Regulating the Automobile*, p. 151.

12. See Malcom S. Salter and others, "U.S. Competitiveness in Global Industries: Lessons from the Auto Industry," in Bruce Scott and George Lodge, *U.S. Competitiveness in the World Economy* (Boston: Harvard Business School Press, 1985), p.190.

Quite conceivably, domestic automobile manufacturers could not maintain quality standards at a time when market forces and government regulations were forcing them to make unprecedented changes in their product lines. While foreign producers also had to adapt, the burdens on them were less. In the first place, they were already producing smaller cars so they did not have to "downsize" their fleets. In addition, larger cars have larger engines that tend to emit more pollutants. Since the air quality standards did not distinguish between vehicle size, U.S. manufacturers may have had to make greater changes in their vehicles. Contributing to the domestic industry's problems were the significant cost advantages of the Japanese manufacturers. Lower labor costs, while important, were not the only source. Japanese producers had developed a number of innovations in manufacturing, including "just-in-time" inventory control and quality circles, that not only lowered costs but reduced defects in manufacturing. 13/

Along with the decline in demand for automobiles came a sharp deterioration in the industry's employment and profitability. In 1980, the number of employees in the motor vehicle and equipment industry declined by more than 20 percent, while after-tax profits of $4.4 billion in 1979 had turned into a $3.2 billion loss. 14/ None of the domestic manufacturers recorded profits including General Motors, which had last reported a loss in 1921. Chrysler, the smallest of the Big Three, was especially vulnerable to the decline in demand and was saved from bankruptcy by the federal government's decision in January 1981 to guarantee loans to the company of up to $1.5 billion.

## PROTECTING THE INDUSTRY FROM INTERNATIONAL COMPETITION

The deteriorating competitive position of domestic industry led to pleas for protection. In 1980, Ford and the United Automobile Workers filed a petition with the International Trade Commission under Section 201 of the Trade Act of 1974 for import relief. By a three to two vote, however, the ITC ruled that the recession and the shift in demand toward small cars were more important factors than increased imports in causing the industry's dif-

13. For a discussion of these innovations, see National Academy of Engineering, *The Competitive Status of the U.S. Auto Industry*, pp. 101-107.

14. Profits are derived from the Department of Commerce, *Quarterly Financial Report*. The motor vehicle industry also includes trucks, buses, and parts manufacturers.

ficulties. 15/ Nevertheless, in response to the large losses of the domestic automobile manufacturers coupled with the continuing increase in the sale of Japanese automobiles, the Reagan Administration negotiated VRAs with Japan in the spring of 1981. Among the reasons the Administration cited for seeking the restraints were the burdens of the government's regulations. 16/

The VRAs established a ceiling of 1.68 million vehicles for the year ending March 31, 1982. This limit was 8 percent below what Japan had exported to the United States in 1980. Japan subsequently agreed to maintain the 1.68 million ceiling for a second year, and an increased ceiling of 1.85 million autombiles in 1984 and 1985. When the extended agreement expired in March 1985, the United States did not request that it be renewed. Nevertheless, Japan unilaterally restricted automobile imports to 2.31 million units for two additional years.

## THE EFFECT OF THE VOLUNTARY RESTRAINT AGREEMENTS

The VRAs were designed to reduce imports of Japanese cars and thus increase their prices, thereby raising prices and output for domestic manufacturers. At first, the economy and the demand for new cars were relatively weak, which limited the quota's effect. As economic growth resumed in 1983, the restraints became more binding and had an increasingly positive impact on the domestic industry.

### The 1981-1982 Period

In 1981, domestic car sales fell by 6 percent, which was twice as rapidly as Japanese imports declined. The average selling price of a new domestic car, adjusted for inflation, increased by 6 percent, and the price of domestic

15. International Trade Commission, *Certain Motor Vehicles and Certain Chassis and Bodies Therefor, Report to the President on Investigation TA-201-44*, Publication 1110 (Washington, D.C.: ITC, November 1980).

16. See "Voluntary Curb on Japanese Car Imports Said to be 'Consensus' of Reagan, Advisers," *Wall Street Journal*, March 20, 1985, p.2.

small cars rose more rapidly. 17/ Despite a 2.7 percent appreciation in the yen, the real price of Japanese cars declined by one percent (see Table 8). Thus, changes in the prices of Japanese imports do not seem to have been much of a factor in the increased prices of domestic cars. In addition, dealers' inventories of new Japanese cars, expressed in days' supply at current selling rates, were higher in July 1981 than they had been the year earlier, before the VRAs took effect. Similarly, inventories in January 1982 were higher than they had been in January 1981. 18/ These increases provide further evidence that, since demand was weak, the restraints did not have much of an effect on the supply of Japanese cars during the first year of the quotas.

A large part of the increase in domestic prices may have resulted from the more stringent auto emission standards that took effect in the 1981 model year. The Bureau of Labor Statistics estimated the effects of these standards on retail prices amounted to 90 percent of the real increase in the average expenditure per car. Japanese manufacturers, like other foreign producers, however, also had to comply with the tighter emission standards. Despite the decline in sales and the costs of complying with tighter emission standards, profits in the motor vehicle industry increased by nearly $3 billion, although the industry recorded a narrow loss. Much of the cost of the retooling to meet the new standards was incurred in 1980 and may have contributed to the large losses in that year.

The experience in 1982, the first full year of the quotas, was similar to 1981. With the economy in the midst of a recession, domestic sales were down by nearly 7.5 percent, more than double the rate that sales of Japanese imports fell. In real terms, the average transaction price of domestic cars increased by 4.6 percent. The price of Japanese imports rose by 2.7 percent despite a 13 percent depreciation in the value of the yen.

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17. See Department of Commerce, "Analysis of the Japanese Export Restraint," processed, undated, p. 12. Car prices are measured by average expenditure per new car and are not adjusted for changes in model mix or optional equipment level. The measure was developed by the Bureau of Economic Analysis, Department of Commerce. While the new car component of the Consumer Price Index controls for such changes, it does not distinguish between domestic and imported cars. Moreover, it contains adjustments for changes in vehicle equipment including those that are mandated by government regulations.

18. International Trade Commission, *The Internationalization of the Automobile Industry and Its Effects on the U.S. Automobile Industry,"* Publication 1712 (Washington, D.C.: ITC, June 1985), p. 51.

TABLE 8. AUTOMOBILE SALES AND PRICES

| Year | Unit Sales (In millions) | | | Average Transaction Price (In 1980 dollars) | | | |
|---|---|---|---|---|---|---|---|
| | | | | Domestic | | Imports | |
| | Domestic | Japan | Europe | Actual | Quality Adjusted[a] | Japan | Europe |
| 1967 | 7.568 | 0.069 | 0.650 | 8,169 | 8,033 | 5,607 | [b] |
| 1968 | 8.625 | 0.110 | 0.829 | 8,363 | 8,144 | 5,573 | [b] |
| 1969 | 8.464 | 0.189 | 0.892 | 8,310 | 8,110 | 5,610 | [b] |
| 1970 | 7.119 | 0.313 | 0.968 | 7,869 | 7,592 | 5,619 | [b] |
| 1971 | 8.681 | 0.579 | 0.982 | 7,974 | 7,734 | 5,634 | [b] |
| 1972 | 9.327 | 0.629 | 0.985 | 7,946 | 7,686 | 5,897 | [b] |
| 1973 | 9.676 | 0.743 | 1.005 | 7,751 | 7,289 | 6,199 | [b] |
| 1974 | 7.454 | 0.592 | 0.807 | 7,558 | 6,965 | 6,721 | [b] |
| 1975 | 7.053 | 0.808 | 0.763 | 7,782 | 7,139 | 6,700 | [b] |
| 1976 | 8.611 | 0.942 | 0.557 | 7,967 | 7,367 | 7,110 | [b] |
| 1977 | 9.109 | 1.388 | 0.686 | 8,138 | 7,522 | 6,876 | [b] |
| 1978 | 9.312 | 1.357 | 0.645 | 8,186 | 7,579 | 7,499 | [b] |
| 1979 | 8.341 | 1.770 | 0.562 | 7,840 | 7,269 | 7,612 | [b] |
| 1980 | 6.581 | 1.906 | 0.492 | 7,630 | 6,911 | 6,708 | 10,534 |
| 1981 | 6.209 | 1.859 | 0.468 | 8,090 | 6,990 | 6,651 | 13,505 |
| 1982 | 5.759 | 1.802 | 0.421 | 8,442 | 7,350 | 6,833 | 15,708 |
| 1983 | 6.795 | 1.916 | 0.471 | 8,688 | 7,576 | 7,163 | 16,686 |
| 1984 | 7.952 | 1.906 | 0.533 | 8,864 | 7,764 | 7,391 | 17,121 |
| 1985 | 8.204 | 2.218 | 0.616 | 8,900 | 7,775 | 7,756 | 16,350 |

SOURCE: Congressional Budget Office; Bureau of Labor Statistics, Department of Commerce.

NOTE: Prices adjusted by the consumer price index.

a. Quality adjustments are based on Bureau of Labor Statistics data on cost of complying with safety and emission standards as well as other quality improvements. It is assumed that the cost of these adjustments declines by 5 percent in each subsequent year; for a justification of this assumption, see Robert Crandall and others, *Regulating the Automobile* (Washington, D.C.: The Brookings Institution, 1986), pp. 34-36.

b. Before 1980, the Department of Commerce did not report prices of European and Japanese automobiles separately.

The 1983-1985 Period

Despite the voluntary restraint agreements, the Japanese manufacturers' share of domestic car sales rose from 21.2 percent in 1980 to 22.6 percent in 1982. But in 1983 automobile sales rebounded along with the economy, and the restraints clearly limited the sales growth of Japanese automobiles. Domestic sales increased by 18 percent in 1983 and 17 percent in 1984. Sales of Japanese imports increased by 6 percent in 1983 and remained essentially flat in 1984. Prices of Japanese imports, adjusted for inflation, increased by 8 percent during this period, nearly 50 percent faster than the rate at which domestic cars prices increased. Moreover, the inventories of dealers in Japanese cars fell significantly after the initial years of the restraints. 19/ The value of the yen increased by 4.6 percent in 1983 and then remained constant for the next two years.

In part, the increase in the price of Japanese cars was the result of quality upgrading--Japanese manufacturers shifted the mix of their cars toward higher-priced vehicles. In 1980, 67 percent of Japanese imports were subcompacts compared with 48 percent in 1984. 20/ In addition, Japanese manufacturers increased optional equipment installation rates for cars exported to the United States. For example, Toyota and Nissan, the two largest Japaneese automakers, more than doubled their installation rates of air conditioners and power steering between 1980 and 1984; the percentage of cars equipped with automatic transmissions increased by more than 50 percent. 21/ Quotas provide exporters with an incentive to shift

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19. Inventories of Japanese cars averaged 42 days supply between April 1981 and March 1982. They declined to 32 days and 24 days in the following two years; for the full year of 1984, they averaged 19 days. See "Analysis of Japanese Auto Export Market," Department of Commerce, p. 7. Also see International Trade Commission, *The Internationalization of the Automobile Industry*, p. 5. In addition, see *Ward's Automotive Yearbook 1985*, p. 168.

20. International Trade Commission, *The Internationalization of the Automobile Industry*, p. 59. For a further discussion of changes in the model mix of Japanese imports that resulted from the quotas, see Robert Feenstra, "Voluntary Export Restraint in U.S. Autos, 1980-81: Quality, Employment and Welfare Effects" in R. Baldwin and A. Krueger, eds., *The Structure and Evolution of Recent U.S. Trade Policy* (Chicago: University of Chicago Press, 1984), pp. 35-59.

21. See *Ward's Automotive Yearbook*, various issues. By 1984, more than 60 percent of Japanese cars sold in the United States had air conditioning, while automatic transmission and power steering installation rates exceeded 45 percent and 85 percent respectively. The increase in installation rates was substantially smaller for domestic manufacturers, in part because a much higher percentage of domestically produced cars were equipped with these options in 1980. Installation rates for air conditioners went from 73 percent to 84 percent, and power steering went from 84 percent to 90 percent.

their product mix toward higher-quality goods. Although Japan would have undoubtedly increased its exports of higher-priced cars without the restraints, the quotas probably limited sales of lower-priced vehicles.

Sales of European imports largely followed the pattern of domestic sales. They fell between 1980 and 1982 and then increased substantially between 1982 and 1985. European producers, however, increasingly stressed the export of high-performance, high-priced cars. In 1980, the average price of a European car sold in the United States was 40 percent higher than a domestic car; this differential increased to over 90 percent in 1984. Evidently, the voluntary restraint agreements did not increase prices of Japanese vehicles by enough to encourage European producers of lower-priced vehicles to increase their exports to the United States.

The industry's profits in 1983 increased by $6.4 billion and rose by 50 percent more in 1984, as the industry earned record profits. Its rate of return on stockholder's equity in both years was higher than it had been anytime since the mid-1960s and far exceeded the average for all manufacturing (see Table 9). Reduced costs were also a factor in this improved profitability. The manufacturers negotiated more favorable terms from their suppliers and began relying more on foreign producers for components. Moreover, Ford and General Motors were aided by an agreement with the United Autombile Workers in 1982 that temporarily reduced wage rates in return for a limited form of profit sharing. As part of its federal loan gurantee, Chrysler employees had accepted wage concessions in 1981. In addition, the industry has reduced its capacity by closing a number of inefficient facillities. 22/

## Estimates of the Effects of the Quotas

The International Trade Commission estimates that, in current dollars, the restraints increased the average price of Japanese imports by $831 in 1983, and by $1,338 in 1984. 23/ The ITC also estimates that the restraints increased the average price of domestic cars by $426 in 1983 and by $659 in

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22. See International Trade Commission, *The Internationalization of the Automobile Industry*, pp. 29-45.

23. International Trade Commission, *The Internationalization of the Automobile Industry*. For a critique of this study, see "Comments on ITC Report (A Review of Recent Developments in the U.S. Automobile Industry Including an Assessment of the Japanese Voluntary Restraint Agreements (February 1985))," prepared for Ford Motor Company by Saul H. Hymans, processed, undated.

TABLE 9. PROFITS OF THE MOTOR VEHICLE INDUSTRY

| Year | Before-Tax Profits (In billions of current dollars) | After-Tax Profits (In billions of current dollars) | After-Tax Profits As a Percent of Stockholder's Equity | | Long-Term Debt As a Percent of Stockholder's Equity | |
|---|---|---|---|---|---|---|
| | | | Motor Vehicles | All Manufacturing | Motor Vehicles | All Manufacturing |
| 1974 | 3.016 | 1.955 | 7.10 | 14.39 | 14.83 | 22.63 |
| 1975 | 2.976 | 1.737 | 6.13 | 11.28 | 16.59 | 24.59 |
| 1976 | 8.469 | 5.097 | 16.77 | 13.57 | 12.40 | 24.81 |
| 1977 | 10.24 | 6.131 | 18.16 | 13.75 | 11.49 | 25.14 |
| 1978 | 10.11 | 6.212 | 16.31 | 14.47 | 9.73 | 24.97 |
| 1979 | 6.715 | 4.382 | 10.93 | 15.82 | 11.98 | 24.07 |
| 1980 | -3.722 | -3.168 | -8.69 | 15.18 | 19.28 | 24.23 |
| 1981 | 0.317 | -0.209 | -0.58 | 13.29 | 24.30 | 25.33 |
| 1982 | 1.099 | 0.734 | 2.08 | 9.07 | 23.58 | 27.04 |
| 1983 | 10.77 | 7.168 | 18.61 | 10.25 | 15.16 | 25.87 |
| 1984 | 15.179 | 10.575 | 23.11 | 12.18 | 11.87 | 24.96 |
| 1985 | 12.938 | 9.085 | 17.77 | 10.01 | 15.39 | 29.21 |

SOURCE: Department of Commerce, *Quarterly Financial Reports.*

1984. Expressed in 1980 dollars, these estimates imply that the VRAs increased 1984 prices of Japanese cars by $1,061, which is more than the real price of Japanese cars rose between 1981 and 1984. The ITC further estimates that the restraints increased domestic sales by 360,000 units in 1983 and 617,000 units in 1984, which increased employment by 25,600 and 44,100 respectively in the two years.

The Congressional Research Service estimates that the restraints increased the price of Japanese cars by $700 in 1984.[24] Another study concludes that in 1983 the average price of a Japanese import was $1,000 higher because of the quotas, and the average price of a domestic car was

24. Dick Nanto, "U.S. Economic Policy in an International Context," Congressional Research Service Report No. 85-34 E, January 2, 1985.

increased by $400.[25] This same study also estimates that the quotas increased domestic sales by 400,000 units, resulting in 26,200 more jobs in the industry.

None of these analyses adequately control for the apparent shift in demand toward larger and higher-priced cars during the period of the VRAs. Consequently, these estimates may overstate the pure price effects of the VRAs; probably more seriously so in the case of Japanese imports, where the shift toward higher priced vehicles and the increase in installation rates of optional equipment has been greater. Nevertheless, these estimates provide a basis for estimating the quotas' impact on the profitability of the industry.

If one assumes that the price increase of domestic cars resulting from the quotas was one-half of the actual quality-adjusted increase from 1983 and 1984, then the quotas increased the average domestic car prices by $310 in 1983 and $430 in 1984. In that case, the quotas generated additional before-tax profits of $2.1 billion in 1983 and $3.4 billion in 1984, which represent 20 percent and 23 percent of the motor vehicles' before-tax profits in the two years. Domestic profits were also aided by the increased sales. Although the stronger demand for new cars enabled dealers to achieve higher profit margins, the bulk of the increased expenditures flowed directly to the manufacturers.

Japanese manufacturers, as well as their dealers, also profited from the higher prices. If, as the ITC concluded, the quotas increased prices by $831 in 1983 and $1,338 in 1984, then they would have earned an additional $1.6 billion and $2.6 billion from the cars sold in the United States. The ITC assumes that absent the quotas, the real price of Japanese cars would have declined. Alternatively, if one assumes that without the quotas the real price would have remained constant, then prices of Japanese cars were $550 higher in 1983 and $825 higher in 1984. In that case, profits would have increased by $1.0 billion and $1.6 billion, respectively. Dealers of Japanese cars, who in some regions of the country were able to command prices in excess of the sticker prices for certain models, undoubtedly captured a larger portion of the higher prices than did the dealers of domestic cars.

Since sales of Japanese cars were restricted by the quotas, any profits forgone from lower sales in the United States must be subtracted from the increased revenues resulting from the higher prices. For example, if Japanese manufacturers were able to make up for the lower sales in the

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25. Robert Crandall, "Import Quotas and the Automobile Industry: The Costs of Protectionism," *The Brookings Review*, Volume 2, No.4 (Summer 1984), pp. 8-16.

United States by increasing sales in other markets at comparable prices, their forgone profits would have been zero.

The available evidence, however, suggests that Japan would have produced and sold more cars without the VRAs. Both the International Trade Commission and the Department of Commerce estimate that the quotas reduced U.S. sales of Japanese cars by about 600,000 cars in 1983 and one million in 1984. 26/ Yet, total Japanese car production remained relatively constant between 1980 and 1984 after growing at an average annual rate of 9 percent between 1975 and 1980; sales in the United States accounted for over 40 percent of the increased production. In 1985, with the quotas relaxed, Japanese production rose by 8 percent with higher sales in the United States accounting for half of the increase. If their average profit per car on the lost sales would have been $1,000 a vehicle, then the estimates of profits accruing to Japanese producers from the VRAs must be reduced by $700 million in 1983 and $900 million in 1984. Thus, although the quotas benefited Japanese producers, they appear to have had a substantially larger impact on the profits of domestic manufacturers.

## ADJUSTMENT BY DOMESTIC MANUFACTURERS

Like other industries receiving protection, domestic automobile manufacturers had significantly higher costs than their principal international competitors. In 1982, estimates of Japan's cost advantage for manufacturing and shipping a subcompact car to the United States ranged from $500 to $2,000. 27/ While higher domestic labor costs have contributed to this cost differential, they are by no means the sole determinant. Japanese management has adopted a number of practices that have not only increased productivity, but have improved product quality as well. 28/ Along with the emergence of Japan as a major supplier to the world's automobile markets, domestic manufacturers were also faced with an escalation of oil prices and

26. See International Trade Commission, *The Internationalization of the Automobile Industry*, p. 65, and Department of Commerce, "Analysis of the Japanese Export Restraint," p. 8.

27. See *The Competitive Status of the Automobile Industry*, pp. 90-108. See also Salter and others, "U.S. Competitiveness in Global Industries: Lessons from the Auto Industry," p. 186.

28. See Alan Altshuler and others, *The Future of the Automobile* (Cambridge: MIT Press, 1984), pp. 145-180; and Salter and others, "U.S. Competitiveness in Global Industries: Lessons from the Auto Industry."

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increasing government regulation. The government hoped that by temporarily limiting competition from Japan the industry could adjust to these various shocks and compete more effectively.

## Investment in the Automobile Industry

The quotas had a direct effect on profits. Major investments in the automobile industry, like other major manufacturing industries, require long lead times, and consequently, any resulting increase in investment would occur with a lag. It is, therefore, too early to draw definitive conclusions about the effect of the higher profits on automobile companies' investments. Preliminary evidence indicates, however, that if there was an increase in automobile investment because of the quotas, it was not substantial.

Ironically, investment in the motor vehicle industry increased in every year from 1975, just after the first oil shock, through 1981, the year that the VRAs were put in effect (see Figure 16). 29/ In fact, investment remained at historically high levels between 1979 and 1981, even as corporate profits deteriorated and the automakers substantially increased their long-term debt. Although Chrysler needed government loan guarantees, both General Motors and Ford were able to secure the requisite funds from the financial markets. Despite the rapid increase in debt between 1979 and 1982, the ratio of debt-to-stockholders' equity in the motor vehicle industry remained below the average for all domestic manufacturers, and subsequently fell well below it (see Table 9). Investment declined in both 1982 and 1983, and then recovered in 1984 and 1985. In real terms, investment in 1985 exceeded the 1981 peak. Some analysts, however, believe that the automakers acquired technologically advanced equipment too rapidly for it to be used effectively. Given the success of Japanese producers' U.S. plants, which do not rely as extensively on such equipment, these analysts maintain that domestic firms should stress new management techniques along with new technologies. 30/

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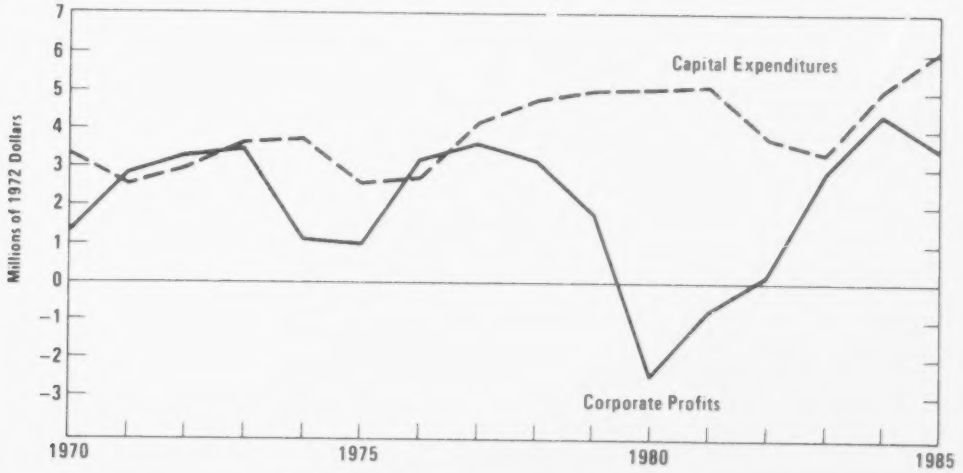
29. Profits in Figure 16 are based on after-tax profits of the four domestic automobile manufacturers and include the results of their international and nonautomotive operations. See *Ward's Automotive Yearbook* (Detroit: Ward's Communication, 1985), p. 177.

30. See, for example, "Auto Makers Discover Factory of the Future is Headache Just Now," *Wall Street Journal*, May 13, 1986, p. 1; and "Detroit Stumbles on its Way to the Future," *Business Week*, June 16, 1986, p. 103.

Figure 16.
Profits and Investment in Auto Industry




SOURCES: Congressional Budget Office based on data in Ward's Automotive Yearbook, (Detroit: Ward's Communication, Inc.), various issues; data also supplied by Department of Commerce.

NOTE: Adjusted by GNP Deflator

While the increase in investment in 1984 and 1985 coincided with the recovery in automakers' profits, it is difficult to determine the quotas' contribution. 31/ With the economic recovery, the industry's profits would have risen substantially without the restraints. Moreover, all three major auto producers had sufficient funds to make investments in things other than new plant and equpment. Notably, both Ford and Chrysler announced plans to buy back large blocks of their own stock. 32/ Such action implies that the companies expect to earn a greater return in the stock market than by making additional investments in plant and equipment. In addition, both General Motors and Chrysler have made acquisitions outside the automobile industry. General Motors purchased Electronic Data Systems in 1984 and Hughes Aircraft in 1985 at a total cost in excess of $5 billion. 33/ Chrysler

31. Preliminary econometric evidence indicates that the Voluntary Restraint Agreements did not have a significant effect on investment.

32. See "Ford Will Buy 11% of Its Shares for $1 Billion," *Wall Street Journal*, November 15, 1985, p.5.

33. See "GM's Purchase of Hughes Aircraft," *Wall Street Journal*, June 5, 1985, p. 3.

acquired Gulfstream, an airplane manufacturer in 1985 for $637 million. 34/ General Motors maintains that its acquisitions give it access to technologies that will improve its competitivess in the automobile industry. 35/

To the extent that the quotas did influence the firms' investment decisions, the preliminary evidence is that these efforts have yet to bear fruit. In 1985, the Japanese relaxed their restrictions on car exports to the United States, and their sales increased by 16 percent as compared with a 3 percent increase by domestic manufacturers. At the same time, the average price of a Japanese vehicle increased at twice the rate that domestic prices increased. These figures suggest that the restraints and not competition from domestically built products are limiting sales of Japanese imports.

## Productivity and Wages

Relative to the gains in all manufacturing, the industry's productivity has increased while the restraints were in effect. Between 1975 and 1979, output per employee hour grew at an average annual rate of 2.8 percent in the motor vehicle industry as compared with 2.1 percent for all manufacturing. Productivity in the motor vehicle industry fell by 7.2 percent in 1980, when automobile production fell by 21 percent. Between 1980 and 1984, it grew at an average annual rate of 6.5 percent versus 3.3 percent for all manufacturing. 36/ While automobile production rose by 20 percent between 1982 and 1984, employment in the motor vehicle industry increased by 10 percent but remained significantly below its peaks in 1979 and 1980 (see Table 10).

Despite the industry's financial difficulties and despite the large contraction of the industry's workforce, workers in the motor vehicle and equipment industry continued to be paid significantly higher hourly wages than workers in other industries; in 1984, they were paid 40 percent more. In-

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34. See "Cessna, Dynamics in Merger," *New York Times*, September 14, 1985, p.31.

35. See, for example, "General Motors," *The Economist* (October 18, 1985), pp. 35-38.

36. The data is compiled by the Bureau of Labor Statistics of the Department of Labor for the motor vehicle industry (Standard Industry Classification 371), which also includes truck manufacturing and parts suppliers. Between 1979 and 1984, productivity of the motor vehicle industry increased by 4.1 percent as compared with 3.3 percent in all manufacturing. Unlike most other industries, growth of productivity in the automobile industry is adjusted for changes in the quality of the product.

cluding benefits such as medical insurance, pensions, and paid vacations, the premium that employees in the motor vehicle and equipment industry receive is even greater; in 1984, their total hourly compensation was 52 percent higher than that for the average manufacturing employee. In addition, wages for employees in motor vehicles and car bodies, which accounts for roughly one-third of the workforce in the motor vehicle and equipment industry, were 54 percent higher than the average for all manufacturing. This amount represents a substantial expansion over the 40 percent that prevailed in the mid-1970s.

Arguably, the continued increase in the wage rates of autoworkers was a result of the VRAs. For example, in 1981 and 1982, employees at General

TABLE 10. COMPENSATION AND EMPLOYMENT IN THE MOTOR VEHICLE INDUSTRY

| Year | Average Hourly Compensation (In current dollars) | | Ratio of Motor Vehicle to All Manufacturing Compensation | Total Employment (In thousands) |
|---|---|---|---|---|
| | Motor Vehicles | All Manufacturing | | |
| 1975 | 6.42 | 4.83 | 1.33 | 792.4 |
| 1976 | 7.08 | 5.22 | 1.36 | 881.0 |
| 1977 | 7.84 | 5.67 | 1.38 | 947.3 |
| 1978 | 8.49 | 6.17 | 1.38 | 1,004.9 |
| 1979 | 9.06 | 6.69 | 1.35 | 990.4 |
| 1980 | 9.83 | 7.28 | 1.35 | 788.8 |
| 1981 | 11.02 | 7.99 | 1.38 | 788.7 |
| 1982 | 11.61 | 8.50 | 1.37 | 699.3 |
| 1983 | 12.11 | 8.83 | 1.37 | 757.8 |
| 1984 | 12.73 | 9.18 | 1.39 | 867.2 |

SOURCE: Congressional Budget Office and the Bureau of Labor Statistics, Department of Labor.

Motors, Ford, and Chrysler agreed to temporary wage concessions. With the industry's recovery, the "temporary givebacks" expired, which suggests that the compensation of autoworkers is related to the industry's financial condition. Thus, autoworkers appear to have captured some of the gains from the quotas in higher wage and salaries than they otherwise would have received.

## CONCLUSION

As demonstrated by the substantial growth in labor productivity in the past five years, the domestic industry is becoming more efficient. Moreover, the U.S. automobile industry has announced a number of extensive and expensive programs designed to increase its ability to compete with imported vehicles. General Motors, for example, has announced plans to produce a new small car line (Saturn) using entirely new production processes. Similarly, Ford's Alpha and Chrysler's Liberty programs are aimed at developing new cars using new technologies. In addition, each of the Big Three has developed an alliance with one or more Japanese producers to secure a better understanding of Japanese production methods.

With or without the quotas, domestic producers would have had to make substantial investments in order to respond to continuously changing consumer tastes and competitive developments. At most, the quotas enabled domestic producers to accelerate some of these programs. But domestic producers face a moving target; Japanese and European producers are also taking steps to reduce costs and increase product quality.

At the time the voluntary restraint agreements were negotiated, Japan offered its greatest challenge in the small car segment of the market. The ability of foreign producers to compete effectively in this segment of the market has been demonstrated since the 1950s. Except for a brief period in the 1960s, the domestic manufacturers have not been able to introduce products to arrest this growth, and the quotas do not have seemed to changed this. In fact, in the future, domestic producers are planning to sell an increasing number of cars that are built by Japanese producers either overseas or in domestic plants owned or operated by them.[37] In addition, producers from South Korea, Yugoslavia, and Brazil are beginning to export cars to the United States at prices significantly below those of the

37. See "Downsizing Detroit: The Big Three's Strategy for Survival," *Business Week*, April 14, 1986, pp.86-88.

Japanese. At least some of these products can be expected to be successful in the domestic market. For example, Korea's Hyundai became the top selling imported car in Canada in its second year. 38/

With the potential that they might be cut off from their principal overseas market, the restraints may have also encouraged the Japanese to establish domestic production facilities. While the quotas were not used by the domestic automakers to improve their competitive position in the small car market, they may have increased incentives for Japanese automakers to produce larger cars. Thus, like the Europeans, Japanese producers are offering larger and higher-priced products that provide greater levels of performance. The large-car market has traditionally been the most profitable segment for domestic manufacturers and the one in which they faced the least direct foreign competition.

While it may make economic sense for domestic automobile manufacturers to specialize in producing larger cars, government regulations may prevent this. The manufacturers have to continue to produce fuel efficient small cars to meet the government's corporate average fuel economy standards. Thus, to the extent that automobile companies face limited funds for investment, government policies may require the automakers to invest these funds in maintaining and improving their products in the market niches for which they do not have a competitive advantage.

38. See "U.S. Small-Car Market to Spark 'Blood Bath'," *Washington Post*, February 9, 1986, p. F-1.

CHAPTER VI

# LESSONS AND OPTIONS

Despite the differences among the industries considered in this report, they share a number of important parallels in their experiences with trade protection. First, competition from imports was a significant and growing factor well before trade restraints were imposed. Second, the effectiveness of the restraints in reducing imports was limited. Finally, and most significantly, protection has not substantially improved the ability of domestic firms to compete with foreign producers. After reviewing these issues, this chapter discusses a number of options for industries injured by competition from imports.

## LESSONS FROM PROTECTION

In the post-World War II period, the concept of offering short-term protection for industries harmed by import competition was an outgrowth of the process of liberalizing trade. If a negotiated tariff reduction injured a particular industry, the "escape clause" provided the prospect of temporary relief by reinstating the tariff. In 1974, however, the Congress modified the "escape clause" to provide trade restraints to a wider set of industries. This change shifted the focus of trade protection from dealing with the problems resulting from a reduction in trade barriers to resolving the more generic problems of increased import competition for American industries.

Trade protection is now mainly intended to increase an industry's international competitiveness, but it accomplishes this goal indirectly. In competitive markets, protection will generally increase prices, profits, output, and employment. In turn, higher profits supposedly provide firms with the resources to make the investments necessary for them to compete more effectively. In the cases considered in this report, however, lack of investment was not the sole--or even the primary--source of the industries' competitive difficulties.

## Consequences of Using Quotas

In the four case studies, the primary method for protecting industries was to impose quotas against the major foreign suppliers. The sole exception was the use of the trigger price mechanism in the steel industry. Quotas were generally aimed at imports from the principal foreign sources of supply, but their impact was limited by a number of factors--increased imports from unrestrained producers, shifts by restrained producers to unrestrained or higher-valued products, and the effects of recessions. Although tariffs and tariff-rate quotas have been used in a number of instances, they were usually employed to protect industries substantially smaller than the ones considered here. 1/

Source Switching. One consequence of limiting imports is source switching, which can often diminish the effectiveness of employing quotas. Quotas are rarely placed on all exporters of a particular product. As a result, limiting the supply from some countries increases demand for producers in unconstrained countries, as well as firms in the United States. The greater the significance of unconstrained foreign suppliers, the smaller will be the impact of the quotas.

The footwear industry provides the most notable example of source switching. Voluntary restraint agreements were negotiated with only Taiwan and Korea, which together accounted for 54 percent of total imports at the time the restraints were put into place. Although the restraints forced a cutback in imports from these countries, imports from other sources made up the shortfall. Source switching has also been a substantial and continuing factor in the textile and apparel industry. For example, the quotas on cotton textiles from Japan in the 1950s were an important impetus to the development of these industries in Hong Kong, Korea, and Taiwan.

In contrast, when restraints were placed on Japanese car producers, other foreign automobile manufacturers were not able to fill the void. Consequently, the voluntary restraint agreements significantly curtailed imports of small relatively inexpensive vehicles and ultimately provided the domestic industry with substantial relief.

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1. See Gary Hufbauer and Gary Rosen, *Trade Policy for Troubled Industries*, Policy Analyses in International Economics 15 (Washington, D.C.: Institute for International Economics, March 1986), p. 46.

Product Switching. The effectiveness of quotas is also undermined when firms in constrained countries shift production to substitute products that are not covered by the restraints. This effect is vividly demonstrated in the textile and apparel industries. The Long-Term Agreement's restraints on cotton textile and apparel encouraged foreign manufacturers to increase their production of fabrics and garments of synthetic fibers, which were not covered by the agreement. Since products of cotton and synthetic fibers compete with one another, this substitution limited the impact of the restraints. The Multifiber Arrangement was an attempt to close this gap. Nevertheless, imports of products made of ramie, silk, and linen, which are not covered by the MFA, have increased dramatically in the past few years. These products were added to the MFA when it was renewed in the summer of 1986.

In some cases, restraints have allowed producers to increase production of those products that are different but made of the same materials. For example, most agreements to limit textile and apparel imports do not cover all products. As a result, foreign producers have shifted production to different garments of the same material. Similarly, in the footwear industry, by reducing the amount of ornamental leather used on certain athletic shoes, Korean manufacturers were able to circumvent the quotas to some extent.

The effectiveness of the quotas to domestic producers can also be reduced when foreign producers shift their product mix toward higher-valued goods, as took place in the footwear, steel, and automobile industries. Since higher-valued products are frequently the most profitable for domestic manufacturers, this shift in the product mix limits the extent that quotas increase the profitability of domestic firms.

Recessions Limit Effectiveness. During recessions incomes decline, which affects demand for both domestic and foreign-produced products. This reduction brings the demand for imports more in line with the quotas. If the decline in demand is large enough, as was apparently the case with automobiles in 1981 and 1982, foreign producers will not want to export more than they are permitted; that is, the quotas will not restrain imports.

## The Effects of Protection on Domestic Producers

Although the factors described above limited the effectiveness of protection, restraints provided some relief in all four of the cases. Consequently, employment, prices, and profits in the aided industries were higher than

they would have been without protection. Nevertheless, even when the restraints were most effective, employment and output were not substantially increased. In the domestic automobile industry, they led at most to 5 percent more production, with a somewhat smaller increase in employment. Protection had even less effect in the steel, footwear and, before 1982, the textile and apparel industries.

Prices and Profits. An important goal of protection is to provide an industry with the resources to modernize and thereby increase its international competitiveness. Thus, proponents of protection believe that one important source of an industry's difficulties is that it cannot generate sufficient profits to undertake necessary modernization. By reducing the supply of imports, protection increases demand for domestically produced substitutes. Consequently, along with output, protection generally increases prices and profits of domestic manufacturers. These higher prices apply to all products the industry sells and not just the increases resulting from protection. Therefore, restraints on imports have a significantly greater effect on the domestic industry's profits than on their output or employment. For example, if an industry's pretax profits were 5 percent of sales before protection, a 1 percent increase in prices, with output remaining unchanged, would raise profits by 20 percent.

In the automobile industry, prices may have been as much as 4 percent higher than they would have been if the quotas were not imposed. In the footwear and steel industries, prices were probably less than 3 percent higher. Nevertheless, only in the footwear and automobile industries did protection significantly increased profits above what they had been before restraints were imposed. In the case of steel, protection failed to increase industry profits above what they had been, although it probably slowed the rate at which they declined. Moreover, by bolstering profits the restraints may have had a role in perpetuating the relatively high wage structures that exist in the steel and automobile industries.

Competitiveness. In the industries considered, import competition was not the result of a sudden shift in conditions, but rather it had been a long-term problem before trade protection was granted. Moreover, the failure of these industries to adjust does not appear to have been the result of a lack of resources. The difficulties of the apparel and footwear industries (and indirectly those of textiles) stem from the relatively high prevailing wage rates in the United States, which protection does not address. Nor can protection be expected to lead to the development of cost-reducing technologies. In fact, protection does not significantly increase the incentives of firms to invest in such technologies.

Even when a firm has the resources to invest in a cost-reducing technology, it does not make the investment unless it expects to earn an adequate rate of return. For example, rather than investing in a new steel mill, U.S. Steel (now USX) elected to acquire Marathon Oil in 1982.[2] Conversely, despite rapidly deteriorating profits between 1979 and 1981, the domestic automobile manufacturers were still able to increase their investments in plant and equipment.

More fundamentally, protection has not significantly increased the international competitiveness of the affected industries. In footwear and steel, imports increased when protection lapsed, and a majority of the International Trade Commission subsequently concluded that the industries had again been injured. Similarly, imports in the textile and apparel industries increased dramatically during the 1980s, suggesting that they have not substantially improved their international competitive standing. This increase in imports of textiles and apparel was sufficient to prompt the Congress to pass legislation, which was vetoed by President Reagen, to tighten the quotas on many foreign producers. In the automobile industry, despite the increasing popularity of larger cars, quotas were still limiting Japanese imports in 1985. Moreover, a number of United States automobile manufacturers have announced that they will buy more cars produced by Japanese and other foreign automakers to sell under their nameplates.

## POLICY OPTIONS

Trade restraints have failed to achieve their primary objective of increasing the international competitiveness of the relevant industries. This failure may have resulted from the restraints not providing the industries with sufficient protection. Alternatively, protection may not have enabled firms to overcome the sources of their competitive disadvantage. In either event, the Congress should consider a number of options for industries adversely affected by international competition. These options include:

- Use tariffs instead of quotas to restrict imports;
- Increase the international competitiveness of domestic industries through a coordinated effort by labor, management, and government;

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2. U.S. Steel paid $3.75 billion for half of the outstanding Marathon stock and issued bonds for the remainder. See "Two Holders of Marathon Move to Block U.S. Steel Merger Citing Unfair Price," *Wall Street Journal*, January 14, 1982, p. 12.

- Focus on aiding workers who have been displaced by foreign competition and cease trying to increase the international competitiveness of domestic industries; and

- End the distinction between firms and workers that have been adversely affected by trade and those that have been adversely affected by other factors.

In addition to these options, the Congress should note that macroeconomic policies, by affecting the value of the dollar, have a substantial effect on firms competing in international markets. Since the early 1970s, the dollar has fluctuated widely in international currency markets. This volatility not only increases the risks associated with doing business in markets with a high share of imports, but makes it more difficult for firms to anticipate developments in the marketplace. While differences in the growth and inflation rates of nations assure some fluctuation in the value of their currencies, the gyrations in U.S. monetary and fiscal policy through much of the 1970s and 1980s has increased this volatility. In the 1970s, the United States coupled a relatively restrictive fiscal policy with a relaxed monetary policy, which led to declining real interest rates and the depreciation of the currency. For much of the 1980s, the United States reversed directions by running large budget deficits while initially restricting the growth of money. By driving real interest rates up, this combination of policies increased the value of the dollar. More stable macroeconomic policies would have resulted in less volatile exchange rates and would have probably eased the difficulties of firms in adjusting to changes in international competitive conditions.

## Use Tariffs Instead of Quotas to Restrict Imports

One possible policy would be to use tariffs--as opposed to quotas--to restrict imports. It should be noted, however, that quotas have a number of desirable features. For one thing, they can be targeted at those foreign producers that are most responsible for the increased imports. Quotas also minimize the financial burden on restrained suppliers because they may increase the profits of foreign producers, and thus they reduce the likelihood of retaliation by foreign governments. Finally, since most quotas are "voluntarily" agreed to by the restrained suppliers, they do not require the United States to violate its obligations under the General Agreement on Tariffs and Trade.

Despite such advantages, quotas pose a number of particular problems as a means of protecting an industry. They provide incentives both for unrestrained foreign suppliers to expand their exports to the United States and for producers in restrained countries to increase their shipments of

higher quality products. Also, when demand declines, as with a recession, the level of protection provided by a quota is often substantially reduced. Further, by preventing foreign firms from supplying more than a specified quantity, quotas may enable a domestic, oligopolistic industry to raise its prices above costs and, in certain cases, actually reduce its output.

In contrast, tariffs provide a more predictable level of relief. They can be readily placed on products of all foreign producers, which precludes sales of certain ones from expanding as is apt to occur under quotas. Moreover, in the case of a tariff, the amount that an importer pays is proportional to the value of its product, and the incentive for foreign producers to change their product mix is significantly reduced. In addition, a tariff's effectiveness is not diminished by recessions. Finally, while a tariff increases the costs to foreign firms of supplying the domestic market, the quantity of imports is not limited. Thus, domestic producers in an oligopolistic industry are less likely to be able to exercise market power if imports are restrained by a tariff.

All restrictions on imports inhibit the movement of resources to their most efficient uses and thereby reduce welfare in a fully employed economy. Tariffs have, however, a smaller adverse impact than quotas, given an equivalent curb on the volume of imports, since the U.S. government captures the revenues resulting from higher import prices. Under a quota, foreign producers capture these revenues. Yet, advocates of protection claim that higher profits stimulate investment and thereby reduce costs. By this logic, however, using quotas to restrict imports can make foreign producers more competitive. On the other hand, a quota would have a similar effect to a tariff if the U.S. government were to auction rights to export products to this country. In both cases, the United States captures the increase in the price of imports that results from the trade restraint.

Unlike a quota, a tariff's effectiveness will be influenced by changes in the value of the dollar. For example, if a 20 percent tariff was to be placed on a product and the value of the dollar then increased by 20 percent, the costs to foreign firms of supplying a product to the United States would be about the same as they were before the tariff was put into place. Thus, in order to avoid a situation in which fluctuations in exchange rates weakens the effectiveness of the restraint, tariffs might be adjusted periodically in response to changes in the value of the dollar.

## Increase the International Competitiveness of Domestic Industries

In the case of the industries discussed in this report, it is doubtful that a lack of investment was responsible for the difficulties they have had, and

therefore more effective protection would not have improved their competitiveness. Instead of simply imposing restraints, adopting a more comprehensive strategy might be able to increase the long-term international competitiveness of injured domestic industries.

One possible way to achieve this goal would be to form a panel of representatives from government, labor, management, consumers, and affected communities to develop a revitalization strategy. It could, for example, be convened by the United States Trade Representative during an ITC proceeding to determine whether or not an industry should be granted trade protection because it has been injured by imports. A similar panel was proposed in H.R. 4800 in the 99th Congress. 3/ Under this bill, however, industry and labor membership was limited, and the panel would not have been able to develop a detailed blueprint for the industry's revitalization.

An overseeing body with a broader mandate could be convened after the ITC determined that an industry was injured by imports. In addition to containing representatives of labor and management from a large proportion of the firms in the industry, this panel would include industry experts appointed by the Congress, the Trade Representative, or the ITC. It could identify market segments where domestic firms can most effectively compete, as well as develop strategies to take full advantage of these opportunities. For example, the panel could coordinate investment decisions and the phasing out of inefficient facilities. A revitalization plan could also include reductions in wage rates and liberalization of work rules. Furthermore, the government could offer grants or loan guarantees to firms to assist in this revitalization; it could also decide to provide the injured industry with protection or to give direct subsidies. 4/

Any argument for such a policy must rest on the premise that the market does not provide firms with the proper incentives to close down inefficient facilities and to make new investments. For example, it might be argued that firms are reluctant to construct new plants of efficient size for fear that the additional output would produce a glut on the market. Further, it might be argued that firms are reluctant to close inefficient facilities for fear that reducing their product line or the number of product

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3. H.R. 4800 empowered the Trade Representative to appoint the panel, if the petitioner requested it. However, neither the failure of a petitioner to request such a plan nor the failure of a committee to devise such a plan is to influence the decision in the proceeding.

4. See, for example, Daniel Luria, "New Labor-Management Models from Detroit?" *Harvard Business Review* (September-October 1986), pp. 22-32.

markets they serve will place them at a competitive disadvantage. By coordinating plant closings and new investments, a panel could reduce such concerns and thereby encourage investment. Moreover, if workers perceive that a coordinated program lessens the risk of job loss, they may be more willing to accept wage cuts.

Despite the development of a revitalization plan, firms may be unable to secure adequate financing if capital markets do not work efficiently. Private sources of funds may focus on the industry's past performance and immediate prospects, while failing to recognize its long-term potential. In that case, the government may have to serve as a necessary source of additional capital either directly or indirectly through trade protection. Moreover, the potential of such government aid might be used as an inducement for the various firms and their workers to agree on a program.

Using government aid as part of a process to rescue an injured party is not unprecedented. Most notably, the government's guarantee of $1.5 billion of loans to Chrysler was part of a package that included concessions by the company's suppliers and workers as well as federal monitoring of investments. 5/ In at least one fundamental respect, the Chrysler bailout differed from proposals to aid industries injured by import competition: the Chrysler revitalization plan did not involve joint actions by competitors.

An industry-wide revitalization strategy, however, poses a number of distinct problems. Because firms in a given industry produce different products, have different cost structures, and have developed different competitive strategies, forging an agreement among diverse constituents will be, at best, an arduous and time-consuming task. In fact, it may prove to be an impossible one.

In any event, using a comprehensive industry-wide plan to revitalize these industries may not be effective. Firms under competitive pressure already have incentives to discover the means to counter increasing international competition. A comprehensive industry-wide strategy reduces the incentives of firms to compete and can thereby be counterproductive. Moreover, such a plan requires predictions about future trends in the

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5. The government also aided Lockheed and New York City during their times of financial difficulty. For an analysis of these bailouts, see Comptroller General, *Guidelines for Rescuing Large Failing Firms and Municipalities* (Washington, D.C.: General Accounting Office, March 29, 1984, GAO/GGD-84-34).

market, and such long-term prognostications could be wrong. Finally, it is a waste of society's resources to compel firms to invest in plant and equipment that capital markets do not expect will produce an adequate return.

If a broad-based revitalization strategy is adopted, it is still questionable whether trade protection should be part of it. Trade protection supposedly contributes to the revitalization of an industry by providing firms with the resources to modernize. If capital markets do not supply the necessary funds, however, it would be more efficient for the government to provide the funds directly through appropriations. This approach would be more likely to result in the resources being used to modernize the industry and not for other investments or higher wages. In addition, direct government funding would avoid the costs to the economy of protection, although they would appear as the consequence of higher budget deficits.

Given that firms can achieve economies by acting jointly to reduce the capacity of inefficient facilities and to build new plants, mergers may provide a more reasonable means to achieve these ends than an industry-wide panel. While existing antitrust laws take into account the impact of foreign suppliers, it is highly unlikely that a merger between all domestic competitors would be permitted under U.S. antitrust law. A combination of a few firms, however, may realize any advantages of coordinating the retirement of existing facilities and the building of new ones.

## Focus on Workers Who Have Been Displaced by Import Competition

One can reasonably argue that government actions have little likelihood of improving an industry's competitive position. Consequently, another option would be to focus the role of government on helping employees in the affected industries find jobs in other sectors of the economy. This step would be achieved primarily by providing displaced workers with help in relocating and retraining. 6/ Eligibility for such relief would be determined by the ITC in something like an "escape clause" proceeding. It has also been

6. For a discussion of these policy alternatives, including one of the author's own, see Gary Hufbauer and Howard Rosen, *Trade Policy for Troubled Industries*, Policy Analyses in International Economics 15 (Washington, D.C.: Institute for International Economics, March 1986), pp. 67-94. Also see Robert Z. Lawrence and Robert E. Litan, "Living with the Trade Deficit: Adjustment Strategies to Preserve Free Trade," *The Brookings Review* (Fall 1985), pp. 3-13.

proposed that workers displaced by imports be given some compensation, or earnings insurance, to make up part of any difference in wages between their old jobs and their new jobs. 7/

The principle of providing some form of compensation for workers who have been adversely affected by import competition has been part of U.S. trade laws since the Trade Adjustment Assistance (TAA) was enacted in 1962. That program, however, largely provided workers with extended unemployment compensation and did little to improve job mobility for displaced workers. 8/ At its peak, in 1980 and 1981, expenditures for the program averaged $1.5 billion a year (see Table 11). Only about 1 percent of TAA expenditures were, however, spent on activities other than providing extended unemployment benefits. Since that time, Trade Adjustment Assistance has been substantially reduced; in fiscal year 1986, it was allocated only $25 million.

Aside from the high cost of the program, the Trade Adjustment Assistance declined for two other reasons. First, the program did not work very well. 9/ It did not provide workers with much incentive to train for different occupations, and a large proportion of workers who were covered by the program ultimately returned to their previous employment. Only 1.4 percent of the workers who received trade adjustment assistance completed a retraining program, and of those only 36 percent took a job for which they had trained. 10/ The second factor that led to the reduction in the size of the program was the belief that it was unfair to distinguish between workers who were displaced because of foreign competition and those who were displaced for other reasons. This problem will be considered in the following section.

Advocates of aiding workers who have been displaced by import competition draw on the lessons of previous examples of trade adjustment assistance. First, they maintain, the proposed programs should encourage job

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7. See Robert Lawrence and Robert Litan, "Living with the Trade Deficit," p. 12.

8. For a discussion of the history of Trade Adjustment Assistance, see Office of Technology Assessment, *Technology and Structural Unemployment: Reemploying Displaced Adults*, OTA-ITE-250 (Washington, D.C.: U.S. Government Printing Office, February 1986), pp. 196-198.

9. See C. Michael Aho and Thomas O. Bayard,"Costs and Benefits of Trade Adjustment Assistance," in Robert Baldwin and Anne Kruger, eds., *The Structure and Evolution of Recent U.S. Trade Policy* (Chicago: University of Chicago Press, 1984), pp. 153-192.

10. See Robert Lawrence and Robert Litan, "Living with the Trade Deficit," p. 10.

TABLE 11. TRADE ADJUSTMENT ASSISTANCE

| Fiscal Year | Workers Receiving TRAs (In thousands) | Outlays for TRAs (In millions of dollars) | Number of Workers | | | Outlays (In millions of dollars) | | |
|---|---|---|---|---|---|---|---|---|
| | | | Training | Job Search | Relocation | Training | Job Search | Relocation |
| 1975 [a] | 47 | 71 | 463 | 158 | 44 | n.a. | n.a. | n.a. |
| 1976 | 62 | 79 | 823 | 23 | 26 | 2.7 [b] | n.a. | n.a. |
| 1977 | 111 | 148 | 4,213 | 277 | 191 | 3.8 [c] | n.a. | 0.2 |
| 1978 | 156 | 257 | 8,337 | 1,072 | 631 | 12.0 | 0.2 | 0.6 |
| 1979 | 132 | 256 | 4,458 | 1,181 | 855 | 12.0 | 0.3 | 1.2 |
| 1980 | 532 | 1,622 | 9,475 | 931 | 629 | 5.2 | 0.1 | 0.7 |
| 1981 | 281 | 1,444 | 20,386 | 1,491 | 2,011 | 1.9 | 0.3 | 2.0 |
| 1982 | 30 | 103 | 5,844 | 697 | 662 | 18.4 | 1.0 [d] | n.a. |
| 1983 | 30 | 37 | 11,299 | 696 | 3,269 | 33.0 | 3.0 [d] | n.a. |
| 1984 | 16 | 35 | 6,821 | 799 | 2,220 | 16.5 | 0.2 | 2.3 |
| 1985 | 21 [e] | 43 [e] | 3,712 [f] | 396 [f] | 793 [f] | 8.5 [f] | 0.1 [f] | 1.0 [f] |

SOURCE: House Committee on Ways and Means, *Background Material and Data on Programs Within the Jurisdiction of the Committee on Ways and Means*, 99th Congress, 1st Session, Committee Print WMCP-99-2 (March 3, 1986), pp. 280-295.

NOTES: Trade Readjustment Allowances (TRAs) provide income support during unemployment or training. Job search expenditures are for job searches outside the worker's commuting area.

n.a. = not available.

a. Data available for fourth quarter only; data on outlays for training, job search, and relocation not available.

b. Combined amount for training, job search, and relocation.

c. Combined amount for training and job search.

d. Combined amount for job search and relocation.

e. Estimated.

f. Data for three quarters.

mobility by placing more emphasis on retraining and relocation, and less emphasis on cash grants. To give workers a greater incentive for participating in job retraining, some proponents have advocated providing cash grants only to those workers who enroll in such programs. Other advocates maintain that it would be more productive to require workers to pay for a portion of their retraining through loans that would be repaid after the individual was reemployed. 11/

A common aspect of these proposals is that they would be self-financing. Options include a tariff (or auctioned quota rights) on the affected imports, a general tariff on all imports, a tax on both domestic and imported products in the affected industry, or some combination of the above. Like Trade Adjustment Assistance, however, it could be funded with general fund revenues. H.R. 4800 required that revenues from tariffs or quota auctions be deposited into a Adjustment Assistance Trust Fund and be used to finance trade adjustment assistance.

The most efficient way to fund such a program to aid displaced workers would be from a broad-based revenue source. After all, the benefits of free trade are distributed throughout the economy and not limited to the consumers of imported products. Moreover, to the extent that the cost disadvantage of an industry is a result of its wages being high relative to other domestic workers, more broad-based funding sources would be less likely to subsidize high wages than tariffs on specific products. Finally, the revenues in such a fund would inevitably either be greater than or less than the needs of the beneficiaries.

Trade restraints may in and of themselves be an effective means of easing the costs that arise when workers are dislocated. By preventing a rapid and sudden increase in the number of workers who are laid off within an industry, protection might limit unemployment in these labor markets and shorten the time it takes for displaced workers to find new jobs. (In certain communities, the affected industry may play a central role in the local economy and the workers in that industry may be reluctant to move.) Reducing these adjustment costs would represent a savings to the economy that might offset the loss in efficiency from the restraints. Moreover, allowing the industry to contract more gradually would permit the municipal governments and the local economy to adjust to the region's changed economic circumstances. During the period of protection, the rate at which the industry contracts and the condition of the local labor market could be

11. See Robert Lawrence and Robert Litan, "Living with the Trade Deficit," p. 10.

monitored by the Department of Labor and the level of protection adjusted accordingly.

End Special Treatment for Industries Injured by Imports

A final option is to end the distinction between industries and firms that contract because of foreign competition and those that contract for other reasons. An economy improves the welfare of the population by fostering competition among producers of goods and services and by providing incentives for resources to be employed in their most productive uses. Trade is an important part of this process. It enables an economy to specialize in those products that it can produce relatively efficiently. Thus, if foreign producers can manufacture goods more cheaply than domestic producers, the welfare of American society is improved by allowing the industry to contract and employing the idled resources in other sectors of the economy. Similarly, domestic welfare is enhanced if producers in one region of the nation introduce a new product even if it results in the contraction of firms producing competitive products in another region.

Demand for an industry's products are affected by numerous factors, increased imports being only one of them. Yet, under current trade laws, an industry can receive protection only when imports are the most important source of the injury; an industry in which imports are the second most important source of injury is ineligible to receive such protection.

In a dynamic competitive economy, resources will inevitably be idled and some workers and some regions will be more adversely affected than others. The injury may come from increased imports, changes in tastes, or entry of new firms in other regions of the country. Mismatches in the location of jobs and the skill levels of workers are not limited to industries that have been adversely affected by trade. Moreover, evidence suggests that the occupational and demographic characteristics of employees who were displaced by import competition--that is, those who received trade adjustment assistance--were similar to those who received unemployment insurance. 12/

Consequently, some analysts consider it inequitable to provide aid to workers and industries that have been injured by trade and not by other

12. See C. Michael Aho and Thomas O. Bayard, "Costs and Benefits of Trade Adjustment Assistance."

factors. Solutions to these problems should be broadly based. Under Title III of the Job Training Partnership Act, the Congress established such a program. If the Congress is concerned with the problems of displaced workers, funding for that program should be increased. Federal expenditures for Title III for the program year ending June 1986 were only 12 percent of expenditures in the peak year of the Trade Adjustment Assistance Program (see Table 12).

TABLE 12. JOB TRAINING PARTNERSHIP ACT TITLE III

| Category | October 1983-June 1984 | July 1984-June 1985 | July 1985-June 1986 a/ |
|---|---|---|---|
| Expenditures b/ (In millions of dollars) | 74.7 | 164.2 | 197.8 |
| Average Enrollment | 28,800 | 48,700 | 72,500 |
| Total Participants | 96,100 | 177,700 | 285,600 |

SOURCE: Department of Labor.

NOTE: Seventy-five percent of funds are distributed by formula and must be matched 100 percent by the states. Exceptions are made for states with higher unemployment rates, although states may charge other items like unemployment benefits to the match.

a. Preliminary data.

b. Expenditures are on an accrual basis; that is, when goods and services are received rather than when payment is made.

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